

The practice of conservation management in rural-amenity landscapes: a dwelt human-environment perspective



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Declaration of authorship

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

Benjamin Cooke

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Abstract

Rural regions once dominated by productive agriculture in many post-industrial nations are experiencing an increasing transition towards non-productive land use. This transition has raised community and academic concern over potential environmental impacts to rural land. However, strong interest in conservation issues amongst rural-amenity in-migrants has supported a counter narrative of positive ecological implications. I argue there is a gap in this debate on the ecological implications of rural-amenity migration; limited attention has been paid to how amenity in-migrants actually practice land management on their property. Moreover, attempts to understand conservation behaviour have often isolated landholders as autonomous social actors, paying little attention to the agency of material environments. To address this gap, the key question of my research is 'How do social and landscape interactions shape the practices and outcomes of land management in rural-amenity landscapes?'

This work has implications for environmental policy amidst the changing land use and social dynamics of rural-amenity landscapes. This is particularly important in the face of increasing policy attention to conservation issues on private land. I concentrate on the growing political emphasis on voluntary conservation initiatives, addressing the limited understanding of how these programs are actually operationalised by landholders on the ground.

To investigate the primary research question, an ethnographically-inspired case study project was undertaken in the hinterland regions of Melbourne, Australia. Narrative interviews and property-walks comprised the primary data collection methods. Interviews with staff involved in conservation policy, and reviews of policy documents provided supporting material. Landholders involved in three different voluntary conservation schemes (representing three distinct policy approaches) were targeted, as well as a non-participant cohort.

My research found that the strong amenity values held by participants underscored individualised, property-centric management aspirations. This

resulted in preferred channels for knowledge generation that favoured experiential learning and communities of practice. Little knowledge for informing management was shared between neighbours in an effort to avoid neighbourly conflict. Over time, this knowledge settled into a durable disposition for stewardship that reflected a prevailing tendency for either ‘active’ or ‘passive’ management.

Dynamic ecologies were being created on private land as landholders navigated the tensions between their diverse aspirations for management and land use. This dynamism was seen in the way ecologies were spatially and temporally enacted; boundaries around the home were created through ornamental nature plantings, while the ‘bring back’ of indigenous nature through revegetation was mediated by non-conservation amenity values.

In adopting voluntary conservation schemes, landholders were pursuing creative conservation outcomes that accord with existing practices and ecologies, often departing from the biodiversity-centric objectives of the schemes. Of key interest was the adoption of market-based schemes to enhance regulatory protection for vegetation, rather than for financial reward. In exposing landholders’ desires for social *and* ecological outcomes through program participation, I suggest the need for a more humanistic approach to conservation policy in rural-amenity landscapes.

Overall, my research shows how the ecologies of rural-amenity landscapes embody a negotiation of amenity values and stewardship, as landholders come to establish a new rural lifestyle. Advancing nature conservation policy in this context requires consideration of the diverse and multiple ways in which landholders create and value these ecologies.

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Chapter 1

Introduction

I'm [not] a great [land management] guru and you probably already had your eyes around when you came down my drive and seen blackberry and all sorts of other weeds in here... (William)

When William purchased his small bushland property over a decade ago, his largely intact patch of remnant forest contained few weeds. William purchased the property to live in a natural setting away from suburbia, but a decade of drought and the actions of a neighbour in clearing trees that once buffered his property from spreading weeds have changed the local ecology. Efforts to remove invasive shrubs have proven futile, as areas cleared of these shrubs rapidly became re-infested by exotic grasses from nearby paddocks (Figure 1).



Figure 1. William cleared a patch of invasive shrubs (seen in the background) to encourage the re-establishment of the indigenous tea-tree seen in the foreground. The result was infestation of the cleared patch by pasture grasses, blown in from an adjoining property.

Despite considering his management efforts to have been largely futile, these challenges led William to consider whether attempts to actively 're-create what (species) belonged' in this space was a sensible approach. Observing that native birds were using exotic shrubs for habitat helped to consolidate the idea that retaining some non-indigenous vegetation could provide ecological benefits:

I deliberately would not take out some blackberry or some pittosporum because that's actually where (the birds) were. It is a bit like throwing the baby out with the bath water. (William)

William came to his property with aspirations of being a good ecological steward of indigenous nature. However, during his tenure, stewardship has come to represent the lived experience of navigating complex management practices and ecological changes in a highly modified landscape. It is the process by which William came to understand this 'dynamic' ecology of native and non-native species that represents the core interest of my thesis. In other words, William's brief narrative hints at a complex and ongoing association of human and non-human agents over time in the making and re-making of rural-amenity ecologies. I explored this relationship, and its role in shaping management practices, as an avenue for informing understandings of ecological transitions in rural-amenity regions. I describe the need for such research insights in the following section.

Research context and problem setting

In seeking to own a small rural property for lifestyle purposes, William represents an increasing number of people occupying semi-natural rural properties in Australia (Argent, Tonts, Jones, & Holmes, 2010; Gosnell, 2011; Mendham & Curtis, 2010). Australians have been migrating to rural land for a lifestyle change stretching back to at least the 1970s (Curry, Koczberski, & Selwood, 2001), but this trend has accelerated in recent decades. Areas once valued primarily for their productive agricultural capacity have become increasingly valued for their natural and visual amenity (Argent et al., 2010; Holmes, 2006). The combination of declining competitiveness in the Australian

agricultural sector, increasing urban house prices and the relative availability of affordable rural land (Argent, 2002; Ragusa, 2010) has helped to facilitate this migration. Regions on the coast or coastal hinterland within commutable distance to cities or large regional centres have proved most popular (Burnley & Murphy, 2004).

This trend has not been exclusive to Australia; other post-industrial nations have experienced similar trends in rural migration. In the UK, a strong literature has over several decades exposed the implications of 'rural-gentrification' for the future of working rural landscapes (Cloeke & Thrift, 1990; Phillips, 1993). Similar patterns have been revealed across continental Europe, in places like Norway (Van Auken, 2010) and Spain (López-i-Gelats, Tàbara, & Bartolomé, 2009). A strong body of work has also emanated from the US and Canada on 'exurban' migration, emphasising the buy-up of rural land by urban dwellers, resulting in increasing levels of absentee property ownership (Gosnell, 2011; Walker & Fortmann, 2003).

A common characteristic of amenity migration globally is an increasing heterogeneity of land use, in comparison with more homogenous productive uses. However, efforts to define and characterise this phenomenon have resulted in an overemphasis on the wholesale replacement of farming with lifestyle-orientated land uses (Argent, 2002). Rather, amenity migration has been a patchy and uneven process, resulting in a mosaic of lifestyle properties amidst continued farming operations (Gosnell, 2011). The term 'multifunctionality' has gained traction as a means for describing the diverse trajectories of land use now being operationalised (Cocklin & Dibden, 2006).

An increasing concern for the ecological condition and integrity of regional landscapes has accompanied rural-amenity migration. This narrative has centred on observations and predictions of increased species loss and habitat fragmentation coinciding with sub division of farmland for rural-residential development (Argent et al., 2011; Gill, Chisholm, & Klepeis 2008). The increasing number of people in the landscape and the land use footprint accompanying

them (houses, outbuildings, pets) has compounded concerns about species loss (Lynch, 2006). Limited knowledge and capacity amongst amenity in-migrants for maintaining land in accordance with local norms has also been noted, with potential for new and established residents to have different conceptions of 'the rural' (Mendham & Curtis, 2010; Pannell & Wilkinson, 2009). The romantic notion of rural life that in-migrants bring with them can conflict with the sights, sounds and smells of a working landscape (Gosnell, 2011). For example, conflicts have emerged when new residents fail to ensure weeds do not spread from their properties to their neighbours, potentially impacting on agricultural production (Yung & Belsky, 2007).

Just as in-migrants can import ideas of the rural, they can import a preference for ornamental vegetation types, potentially conflicting with local efforts to restore native vegetation (Cadieux & Hurley, 2009). This partly supports a view that amenity in-migrants are more interested in the aesthetic and lifestyle aspects of owning a natural space, rather than actively managing it for conservation (Knoot, Schulte, & Rickenbach, 2010; Van Auken, 2010). Owning a space for nature appreciation may also translate into a lack of interest in contributing to cross-boundary management issues (Mendham & Curtis, 2010). This 'property-centric' management focus may contribute further to the tensions between new and established residents raised above (Gill et al., 2008).

Running counter to this dominant narrative of negative ecological implications have been suggestions that amenity land use transitions could have ecological benefits. To begin with, amenity migrants often record higher levels of interest and concerns for ecological issues than farmers in the same district (Mendham & Curtis, 2010); this can serve to re-ignite enthusiasm for conservation issues in local communities (Jones, Fly, & Talley, 2003). Moreover, landholders like William are moving to rural areas with the express intent of preserving, managing and restoring bushland; the land use flexibility that comes with not having to earn a living through farming makes this a possibility (Parbary et al., 2008).

Identification of negative ecological impacts of amenity migration relies upon assumptions about the condition of the landscape into which people are migrating. For example, rural sub division that facilitates forest regeneration by taking marginal grazing land or timber plantations out of production are unlikely to be wholly negative (Walker, 2011). Several studies have noted increases in vegetation cover in regions that have become popular with rural in-migrants (Walker, Marvin, & Fortmann, 2003). Active planting of both native and non-native vegetation, and facilitating regeneration of previously grazed farmland appear to be popular pursuits (Gill et al., 2008; Mendham & Curtis, 2010; Parbary et al., 2008). Thus, a multitude of processes are impacting the landscape in a variety of ways through the increasing presence of lifestyle-orientated rural landholders.

The debate over environmental consequences demonstrates that amenity migration cannot be easily characterised as a negative or positive for conservation (Argent et al., 2010). I have sought to hint at this underlying complexity through William's short narrative above. What is clear, however, is that lifestyle-orientated landholders are active in shaping the ecologies into which they migrate (Gill, Klepeis, & Chisholm 2010; Cadieux, 2011). I contend, therefore, that a more nuanced exploration of ecological transitions in rural-amenity landscapes is required – one that extends beyond the 'impacts' mentality of human actors in the landscape (Trigger, Toussaint, & Mulcock, 2010).

In order to provide new insights into ecological transitions associated with rural-amenity migration, attention must be paid to how the practices of land management play out in the landscape (Gill et al., 2010). This necessitates an exploration of the processes that influence landholder management and how the outcomes of management are materialised in the landscape. Despite recognising that natural amenity is a powerful driver of amenity in-migration, our knowledge of how landholders practice land management remains limited (Walker, 2009; Holmes, 2006; Wilson, 2008; Klepeis, Gill, & Chisholm, 2009). Moreover, existing understandings of landholder practice have been largely inferred from proxy

measures of attitudes and values, divorcing individuals from their social, historical and biophysical contexts (Wilson, 2008).

In bringing attention to landholder management practice, a key task for this thesis is locating these practices within the social and material worlds in which they are performed (Macnaghten, 2008). As demonstrated in William's story above, to isolate human agency in the study of management practice would be to ignore the agency of nature in shaping his practices (Jones & Cloke, 2008). To date, the interrelationships between people, practice and physical environments in producing the ecologies of rural-amenity landscapes have remained largely unexplored (Gill et al., 2010; Gosnell, Haggerty, & Travis, 2006). Indeed, pro-conservation behaviour research more generally has been reticent to address the potential for material environments to shape, and not simply be shaped by, human action (Gosden & Head, 1994; Kasper, 2009).

Understandably, private land conservation research has focused on the property parcel as the default scale of interest. However, social and ecological interactions that influence management can happen both above and below this scale. The movement of flora and fauna across the landscape and across fence lines reinforces the notion that property parcels are nested in a wider ecosystem. We see this in the way weeds from William's neighbours' paddock spread to his property. Moreover, boundaries can be made within a property around houses, gardens or native vegetation, allocating space for different types of nature (Head & Muir, 2006; Power, 2009, 2005). How individual properties and landholder practices contribute to ecological processes that happen at different scales requires greater analysis, especially in the face of increasing rural subdivision to accommodate amenity in-migrants (Parbary et al., 2008).

The implications of spatial dynamics extend beyond the biophysical, given the potential for knowledge exchange amongst landholders that impacts on management practice. It has been well established in farming contexts that 'across the fence' knowledge sharing with neighbours is common (Riley, 2006). Nevertheless, evidence about the importance of knowledge exchange between

rural-amenity landholders is inconclusive, with some suggestion that ‘property-centric’ aspirations are limiting social learning opportunities (Klepeis et al., 2009; Larsen et al., 2007). For this reason, exploring the influence of social and biophysical scalar interactions is critical for research into management practice.

As the transition of land use from productive to lifestyle orientation largely defines the amenity migration phenomenon, temporal dimensions of management practice are also an important scalar consideration. Despite the centrality of land use transitions, landscape change and the actions of past landholders have seldom been incorporated into understandings of contemporary management (Riley, 2006; Walker, 2011). Moreover, conservation practice as a process that is fundamentally redemptive – the preservation or ‘bringing back’ of ecologies through restoration – reinforces a need to be cognisant of temporality.

In summary, considerable opportunity exists to contribute to conservation research in amenity landscapes by making room for human and non-human actors in mediating the practices and outcomes of management. Interrogating these interactions in a manner that is sensitive to spatial and temporal dimensions furthers the potential for novel contributions to this field. Following the section on policy implications, I introduce a conceptual framework for approaching this task.

The implications for policy

The multifunctionality of rural landscapes presents a challenge for governments and communities in relation to addressing conservation objectives (Buxton et al., 2006; Parbary et al., 2008). Increasing heterogeneity of land use and the diversity of ownership aspirations has implications for how landholders engage with governance institutions (Parbary et al., 2008; Gill et al., 2008). To date, voluntary conservation schemes and rural-amenity migration have largely remained concurrent but parallel fields of research into land use and policy (Gill et al., 2008; Mendham & Curtis, 2010; Gosnell, 2011; Lockwood & Davidson,

2010). I argue that the increasing political preference for leveraging conservation outcomes through voluntary schemes, and intensifying migration of amenity landholders to rural landscapes, presents a fertile opportunity for an integrated examination of policy and practice.

A key reason for increasing policy attention to private land conservation has been growing recognition of the need to complement the protected area system for conserving threatened species (Gallo, Pasquini, Reyers, & Cowling, 2008). Indeed, threatened fauna and vegetation communities are often over-represented on private land, as public reserves often protect similar highland forest types historically unsuitable for agriculture (Knight, 1999).

While legislative approaches like local planning controls and state and federal legislation have traditionally been the backbone of environmental policy on private land, recent decades have seen a transition away from centralised regulatory frameworks (Marshall, 2009). Diverse voluntary conservation initiatives have filled the void left by the roll back of centralised governance, appealing to more individualistic ideas of ownership and private property (Mansfield, 2008). These voluntary schemes have utilised a range of policy mechanisms, including extension/outreach, direct payments for conservation work and conservation covenant agreements to leverage ecological improvements on private land.

The continued expansion and diversification of voluntary conservation schemes makes them an important aspect of the portfolio of conservation policy and thus worthy of interrogation (Doremus, 2003). This is especially true in rural-amenity landscapes, where adoption of such schemes is often strongest, given the flexibility associated with non-productive land use (Pasquini, Cowling, Twyman, & Wainwright, 2010). To date, research into such schemes has centred largely on the quantity of landholders who participate, with little analysis of *how* people participate (Merenlender, Huntsinger, Guthey, & Fairfax, 2004; Rissman & Sayre, 2012). In other words, the 'quality' of participation has been underappreciated (Wilson & Hart, 2001). The limited attention to the quality of participation has

been particularly acute in rural-amenity regions (Gosnell, 2011; Lockwood & Davidson, 2010), meaning considerable potential exists for research into how rural-amenity landholders enact voluntary conservation schemes. Of specific interest here – as I outline below – is the potential for conservation programs to be operationalised by landholders in unanticipated ways (Castree, 2007a).

My research focused specifically on three voluntary conservation schemes available to landholders in the state of Victoria, Australia. These initiatives are Trust for Nature covenants, Land for Wildlife and EcoTender (briefly detailed in Table 1 below). These schemes were chosen as they reflect the three basic types of policy instrument that characterise most voluntary programs; binding regulation (Trust for Nature); suasion (Land for Wildlife) and market-based instruments (EcoTender) (Cocklin, Mautner, & Dibden, 2007).

Table 1. The three voluntary conservation schemes covered in this thesis, and the policy mechanisms, objectives and characteristics that define them.

	Core policy mechanism	Key objectives	Key characteristics
Trust for Nature	Legally binding conservation covenant restricting land uses not sympathetic to conservation	To protect biodiversity on private land through permanent protection of conservation assets on property	<ul style="list-style-type: none"> • Perpetual conservation agreement • Participants compelled to actively manage bushland • Participants receive extension officer visits every three years
Land for Wildlife	Non-binding extension/outreach program with broad eligibility criteria	To build the knowledge and management capacity of landholders with an interest in learning about their property environments	<ul style="list-style-type: none"> • Non-binding participation that ends when property is sold or landholder opts out • Information provided through extension officer visit, newsletter and field days
EcoTender	Reverse auction tender mechanism designed to encourage landholders to bid for money to undertake an agreed set of management works	To encourage conservation action by offering financial incentives to conduct management works	<ul style="list-style-type: none"> • Landholders bid against one another in a blind auction in an attempt to sell their ecosystem services to the government • Three year binding contracts; payments on delivery of conservation work

A conceptual framing for human-environment relations

Having defined the research topic and problem setting, it became necessary to develop a conceptual framework for exploring the multifaceted interrelationships that underpin landholder conservation practice. Such a framework had to allow room for the human-environment interactions that shaped William's practice to come to light. As I identified above, pro-conservation behaviour research has traditionally isolated human agents from the social and biophysical worlds they inhabit (Kasper, 2009; Reid, Sutton, & Hunter, 2010). This approach fails to recognise that "people come to [environmental] issues through particular things that matter to them... 'human' and 'relational' aspects of the environment..." (Macnaghten, 2008, p80). There is a need to adopt a heuristic that locates human beings in the environments where management practice occurs, to give voice to the landscape as a material agent in these practices.

To achieve this framing of human-environment interactions, I utilised Heidegger's (1971) *dwelling* perspective for informing human-nature interactions. In this context, dwelling suggests management practices are likely to emerge through active and intimate involvement with everyday environments (Cloke & Jones, 2001; Ingold, 2000; Macnaghten, 2008). Moreover, dwelling is attentive to the inter-relationship of people and nature in producing and re-producing landscapes over time (Ingold, 1993; Macnaghten, 2008). This perspective emphasises how being *in* the landscape can influence understandings of ecological processes, and how such understandings contribute to management practice.

The aforementioned need to be attentive to wider spatial and social relations in shaping management practice necessitated a re-working of Heidegger's original concept of dwelling. The exclusive contemplation of intimate everyday encounters in shaping human action directed by Heidegger leaves no room for the influence of encounters from beyond those environments (Harvey, 1996). In order to affect this re-working I looked to social-ecological systems (SES) thinking. Incorporating lessons from the origins of SES thinking is highly relevant here, given the focus on exposing the interdependence of ecological processes and social mechanisms in the context of ecosystem management (Berkes & Folke, 1998). Moreover, SES has important utility for translating the findings of this research into the policy arena (Johnson, Wilson, Cleaver, & Vadas, 2012).

Research adopting an SES thinking perspective has played an important role in exposing the dynamic cross-scale interaction of social and ecological processes (Leach, 2008). The ecosystem management context of this body of work is useful for highlighting the role of such interactions in shaping management practice on private land. By linking to a dwelling perspective, the limitations of SES thinking as a heuristic – namely subservience of human dimensions and an under-theorisation of human agency – can be overcome (Cote & Nightingale, 2011). I call this integrated concept the 'dwelt human-environment perspective'. This perspective can be best described as providing a 'place-based' rather than 'place-bounded' framework for interrogating management practice (Massey, 2005).

Through the dwelt human-environment perspective I can interrogate the under-examined spatial and temporal relations around management. Indeed, timescales in particular were integral to Heidegger's original conception of dwelling. I intended to reflect this by being sensitive to the role of both the past and the future in my analysis of how contemporary management practice is shaped. Extending from the dwelt human-environment perspective I will develop the concept of landscape legacy, which serves to understand how past landscapes and land uses can be selectively remembered and re-interpreted by contemporary landholders in the pursuit of conservation outcomes.

In terms of spatial considerations, the dwelt human-environment perspective helps to de-centre the property parcel as the exclusive space of interest for management practice. While the private property parcel is a defining spatial characteristic of this research, it must remain conceptually permeable to social and material interactions, whilst also being nested within wider spatial relations.

While a core objective of the dwelt human-environment perspective is to bring agency to non-human actors, the conceptual work for this thesis had to be attentive to the role of social interactions in shaping practice. As noted above, the extent to which knowledge is shared between landholders in rural-amenity landscapes is debated, suggesting a need to explore this dimension. The widespread application of social learning theory described in the Natural Resource Management (NRM) literature provides an appropriate tool for understanding how people learn through interaction at local and non-local scales (Lave & Wenger, 1991; Rodela, 2011).

Having characterised a conceptual framework, I looked to expand the definition of 'management practice' beyond praxis – that is, beyond a simple description of the performance of a tangible action. Thinking about management as a 'social practice' (Macnaghten & Urry, 1998) helped to position learning and knowledge as inseparable from praxis in exploring management.

Finally, I applied the dwelt human-environment perspective to position landholders and the material landscape as active rather than passive recipients of policy prescriptions (Castree, 2007a). This positioning recognises the role of human and non-human agency in shaping the conservation outcomes actually delivered by schemes. Thus, space is created for the 'creative' implementation of programs in ways that do not necessarily accord with policy intentions (Higgins & Lockie, 2002). To date, the potential for creative adoption has been obscured by a lack of attention to the quality of program participation mentioned above. It was the potential for creatively enacted programs, and the manner in which this creativity departs from original scheme intentions, that was of particular interest to me.

Research questions

Following the conceptual framing, I turn to the specific research questions that guided my research. They are as follows:

Primary question:

- How do social and landscape interactions shape the practices and outcomes of land management in rural-amenity regions of Victoria?

This question had a practical dimension in terms of seeking to explore the role of biophysical and social relations on landholder management in the state of Victoria (addressed in Chapter 5). However, it also serves to underpin the wider thesis framing of human-environment relations outlined above, while guiding the secondary questions through attention to these relations in understanding practice and policy outcomes.

Secondary questions:

- What types of ecologies are being produced through landholder management practice in rural-amenity landscapes?

This question centres on the role of amenity migrants in creating new natures on private land over time. It provided an avenue for exploring the seldom-examined interrelationships between people and nature that appear to be making and re-making ecologies on lifestyle-orientated properties.

- How do landholders operationalise voluntary conservation schemes in rural-amenity landscapes?

In attempting to answer this question, I sought to clarify how landholders are engaging with voluntary schemes to produce an understanding of program adoption that extends beyond number of participants as a measure of success.

- What implications arise from landholder practice and program operationalisation for future conservation policy in rural-amenity regions?

The goal of the final question was to direct the learning from the previous research questions towards a discussion of the future implications of my findings for policy and practice in rural-amenity landscapes.

Research design – outline

The conceptual framing of this research provided some notable challenges for the research design. My most important goal was to produce a research design that captured the social and material contexts in which I sought to locate management practice. The following is a brief outline of my research design, with full details to be found in Chapter 4.

The research design can be described as an ethnographically-inspired case study. The ‘case’ of interest is the process and outcomes of management practice conducted by rural amenity in-migrants in Victoria. A case study research design was applied for its encouragement of an in-depth exploration of phenomena ‘in context’, via multiple research methods (Stake, 1995). This sensitivity to the context of the research encounter helped address the key challenge noted above.

Moreover, this design allowed for the three conservation schemes of interest to be positioned as 'embedded' cases for interrogation with the broader case, giving some structure to researching the policy component of my research (Yin, 2009).

The ethnographic aspect of the study design called attention to the 'phases' of a research encounter: in other words, the logic of moving from more structured research methods to more informal approaches, as rapport is built between researcher and participant (Morse & Richards, 2002). It also reinforced the need to be sensitive to research context, by locating the research encounter in environments that were of relevance to the research questions. Surprisingly, research 'in the [paddock]' has been rare in land management research across both agricultural and non-agricultural contexts (Riley & Harvey, 2007, p395). In this sense, ethnography played an important role in directing my research methods.

The two primary research methods were narrative interview of rural-amenity landholders and participant observation that involved walking their property together. The narrative approach to interviews aimed to encourage landholders to tell stories about their experiences of management and interactions with landscape over time (Rosenthal, 2004). To complement the interview, I walked participants' properties with them as we discussed management practice. This form of participant observation, known as the 'walkabout method' (Strang, 2010) recognises that material environments that are important to people will embody memories and experiences of interactions with those spaces. In other words, property ecologies can be a repository of memories for management practice, making them important spaces for a research encounter. This process also recognised the agency of the landscape by observing the remnants of ecological change over time and how those changes shaped management practice.

Interviews with policy officers involved in the three voluntary conservation schemes outlined above and analysis of policy documents were conducted to bring some perspective to landholder research encounters, providing additional

methods in line with the case study approach. This was accompanied by informal discussions with policy-makers broadly involved in private land conservation policy.

In translating the conceptual framing of this research into a workable project that facilitated the answering of the research questions, the research design provided a solid foundation for exploring land management practice.

Overview of study area

The setting for this research was the hinterlands of Greater Melbourne, Victoria, Australia. The rural regions around Melbourne have long been popular for lifestyle-orientated in-migration, making it an appropriate setting for this research (Buxton et al., 2006; Parbary et al., 2008). Two study areas were identified within Melbourne's hinterland, as shown in Figure 1.1 – the Bass Valley district of West Gippsland, and the eastern district of the Corangamite catchment.



Figure 1.1. The two study areas within Melbourne's hinterland that were the focus of this research.

These regions share common characteristic of rural-amenity regions: increasing population, proximity to Melbourne for commuting and heterogeneous property size. Both regions have distinctive landscapes and land use histories, meaning a consistent biophysical context across each study area. Most importantly, the three voluntary conservation schemes on which my research focused are operational in both areas.

Thesis structure and outline

Chapter 2

I begin this chapter by defining the rural-amenity migration phenomenon in Australia and comparing it with its equivalents in other post-industrial nations. This chapter is also used to show how the characteristics of the study areas chosen for this research project accord with the definition of rural-amenity landscapes. The ecological implications of the rural-amenity land use transition are discussed, with reference to the negative and positive implications that have framed the debate. Here I emphasise the notable knowledge gap in understanding how amenity in-migrants practice management on their land. This lays the groundwork for questioning how we conceptualise landholder action and the role of the environments in which those actions are performed. Finally, this chapter provides a background to conservation policy on private land in Victoria, an explanation of the reasons behind a focus on voluntary conservation schemes, and a discussion of how landholder participation in these initiatives has been narrowly assessed.

Chapter 3

Chapter 3 addresses the key conceptual challenges identified in the previous chapter. It begins with a conceptualisation of human agency as embedded in social and material relations; this takes the form of the dwelt human-environment perspective outlined above. Following this conceptualisation, I address the other conceptual challenges presented by the problem setting: creating space for the influence of scalar interactions beyond the property (spatial) and beyond current ownership (temporal), and providing a framework

for social learning that allows examination of knowledge exchange in shaping management practice. This culminates in re-definition of 'management practice' that reflects more than praxis. My final task in this chapter is to outline how the conceptual framework shapes the interrogation of how landholders operationalise conservation schemes.

Chapter 4

In this chapter I outline how landholder conservation practice will be studied in accordance with the conceptual framing outlined in Chapter 3. It includes a description of the ethnographically-inspired case study design outlined above, directing narrative interviews, property walks, policy staff interviews and document analysis. This chapter also addresses how measures of 'quality' in qualitative research were addressed, including reflexivity, sensitivity, limitations, ethics and a logical translation of conceptual framing to research design.

Chapter 5

In this chapter I describe my examination of the key amenity values and aspirations that landholders seek to pursue through rural-amenity in-migration. This was critical in establishing the foundation for management practice that permeates my thesis. In characterising these values (*owning* amenity, seclusion, domestic space and stewardship aspirations), their role in channeling the generation of management knowledge is brought to light. This is shown through the emergence of experiential knowledge grounded in formative experiences of nature on the property. Amenity values also dictate how landholders' learning differs between communities of proximity (neighbourly relations) and communities of practice (non-local social interaction). This will culminate in a discussion of how social and experiential knowledge settles into durable dispositions for stewardship over time. As such, this chapter contributes new insights into how land management practice is produced.

Chapter 6

Chapter 6 contains a discussion of how 'dynamic' ecologies are being spatially and temporally enacted through management practice over time. These

ecologies are the materialisation of tensions between stewardship aspirations and non-conservation amenity values. The selective and contested nature of legacy encounters is prominent here. I then examine how landholders can create different spaces and boundaries for native and ornamental nature, emphasising the importance of ornamental nature in landholders' desires to express agency in the landscape. This chapter contributes to knowledge on the making and re-making of new ecologies in rural-amenity landscapes.

Chapter 7

Chapter 7 addresses how landholders operationalise the three different voluntary conservation schemes outlined above; each scheme is addressed in a separate section. The Trust for Nature covenant section deals with the application of covenants for projecting landscape legacy and pursuing social good conservation outcomes through individualised practice. The Land for Wildlife section addresses the institutional connections that facilitate individualised conservation practice, while also helping to break down nature/culture divides on-property. In the EcoTender section I examine how Victorian landholders are creatively implementing a market-based scheme in ways that challenge assumptions about financial incentive programs. I conclude this chapter with a reflection on the tensions between policy and landholder practice.

Chapter 8

This chapter begins with a consolidation of the unique contributions of the research discussed in the previous three chapters. Grounded in the tensions between policy intentions and landholder implementation, I explore the need for a humanistic turn for conservation policy in rural-amenity landscapes. This shift in approach is discussed in the context of the need for a more sustainable trajectory for conservation policy into the future. In line with a humanistic turn, I suggest some key principles for guiding voluntary conservation scheme policy that are applicable to rural-amenity landscapes in Victoria and beyond.

Chapter 9

This chapter concludes the thesis, resolving the key research and theoretical contributions. Recommendations for the three voluntary conservation schemes are also provided. Moreover, I note the limitations of my study, suggest potential revisions for my conceptual framework and point to avenues for future research.

Chapter 2

Rural-amenity landscapes, ecological implications and the neglect of landholder management practice

Introduction

The objective of this chapter is to demonstrate how debate on land use and ecological transitions in rural-amenity landscapes has progressed with limited attention to how landholder management practice plays out 'on-property'. In order to progress to this point I begin by outlining the transitions in rural land use away from productive agriculture in Australia, stretching back to the post-WWII period (Hugo, 1994). This has parallels to changing rural landscapes across the post-industrial world. These changes have seen rural areas of high visual and natural amenity become increasingly popular for their consumptive value (as a lifestyle destination) rather than their potential for productive agricultural output. Despite a history of amenity migration into rural areas going back the 1970s (Curry et al., 2001), recent acceleration of this trend has brought a range of associated pressures to the forefront of public and academic debate (Barr, 2005; Parbary et al., 2008). Following some background to rural-amenity migration, I outline how the study areas selected for this research accord with the characterisations of the phenomenon.

A feature of the discussion over rural-amenity migration has been the potential for degradation and fragmentation of rural environments, due primarily to population pressures and increasing property subdivision. The dominant narrative surrounding the implications for biodiversity has been a negative one, centred on the loss of natural environments. Legitimate concerns have been raised about an increased number of properties in the landscape, the clearance of vegetation for recreational pursuits, neglect of land through absentee ownership and poor knowledge of local landscapes on the part of amenity migrants. However, running counter to these observations have been positive

reflections on amenity migration, suggesting lifestyle-orientated landholders have a strong interest in biodiversity conservation, with some in-migrants purchasing land with the intention of landscape rehabilitation. Some regions where productive land use has declined have seen localised increases in vegetation cover (Walker, Marvin, & Fortmann, 2003). Indeed, whether it is natural regeneration, the planting of non-native exotic species or a combination of both, amenity migrants appear to be active in the creation of dynamic ecologies in rural amenity landscapes. What this debate highlights is the difficulty in labeling rural-amenity migration as a wholly negative or positive phenomenon regarding conservation.

I seek to demonstrate that a neglected avenue of research in this field has been the interrogation of *how* amenity landholders practice conservation management on their properties (on-property). In other words, how landholders experience nature as an interaction 'between land and everyday life' (Halfacree, 2006, p309). This topic has seldom been explored from a management perspective. Via an emerging body of human geography research concerning human-nature relationships, I emphasise how efforts to improve our understanding of landholder conservation practice must be attentive to the social and material relations that surround management. This discussion lays the foundation for a conceptual framing of management practice in the following chapter.

Before concluding this chapter, I outline the policy dimensions of private land conservation relevant to my research. A range of policy levers have been applied in this space during the brief history of environmental governance, with legislative controls for protecting species and environments providing the policy backbone in Australia. However, a shift in policy emphasis associated with the rise of a neoliberal governance mentality has seen voluntary conservation schemes become a common fixture of policy portfolios. Despite this increasing popularity, only a small body of research that has asked *why* and *how* landholders participate in these various schemes (Merenlender et al., 2004; Rissman & Sayre, 2012). Most research in this context has focused on the

‘quantity’ of participation rather than the ‘quality’ (Wilson & Hart, 2001). Limited insight into how schemes are operationalised by landholders is only amplified in rural-amenity contexts (Gosnell, 2011). In making this observation I seek to demonstrate the potential for connecting research on rural-amenity landscape conservation to research on voluntary conservation schemes.

Definition of ‘rural-amenity landscapes’

The lack of uniform characteristics associated with rural in-migration and production decline has inhibited the emergence of a singular definition for this phenomenon (Nelson, 2009; Walker, 2011). Terms like ‘exurbia’, ‘counter-urbanisation’, ‘peri-urban’, ‘back-to-the-land’ and ‘rural gentrification’ have all been deployed in different context and locations Cloke & Thrift, 1990; Buxton et al., 2006; Gosnell, 2011; Halfacree 2006; Race et al., 2010). In Australia, the descriptors ‘sea change’ (Salt, 2004) and ‘tree-change’ (Burnley & Murphy 2004) have entered the popular lexicon, encapsulating the lifestyle transition associated with moving from suburbia to coastal or hinterland regions. The term ‘new rural landholders’ (NRLs) was also recently introduced by Gill et al. (2010) to reflect the diverse motives of people who make this tree-change. To attempt a universal definition of this land use transition is beyond the scope and focus of this research. However, it is important in this introductory section to clarify and explain the use of the term ‘rural-amenity landscape’, following Barr (2005), before providing a background to the emergence of these new landscapes in Australia and elsewhere.

I use the term ‘rural-amenity landscape’ in recognition that it is amenity and lifestyle considerations that underpin the majority of in-migration to rural locations (Argent et al., 2010). While this amenity can be tied up in the desire for a tree-change, linking lifestyle pursuits to only natural landscapes can obscure other elements of amenity. These include attraction to regions of warm and stable climate, proximity to the coastline, access to recreational activities and presence of regional health facilities (Argent et al., 2010; Deller et al., 2001). It may even be the pursuit of ‘the simple life’ that is perceived to come with leaving

the hustle and bustle of the city (Halfacree, 2006; Moss, 2006). As such, the term 'amenity' is being deployed here in a deliberately broad sense, to avoid excluding landholders unnecessarily from the definition. Amenity has occasionally been used to describe a type of lifestyle-orientated landholder separate from a 'conservation-minded' lifestyle property owner (Barr, 2005; Holmes, 2006; Parbary et al., 2008). My use of the term is intended to encapsulate all types of lifestyle-orientated aspirations for rural property with the amenity definition.

I also consciously chose to adopt Barr's (2005) terminology for the reference to 'landscape' in the description of the rural-amenity migration phenomenon. Referencing the land in this way brings attention to the physical landscape and its attributes as the setting for change. This is pertinent given my research focus on the practices of management and the ecologies that result from this migration, and not the process of migration itself.

In defining rural-amenity landscapes, it is important to note two aspects of this broader phenomenon that do not feature prominently in this chapter or the thesis more generally. Firstly, as established in the previous chapter, my research focuses on the management challenges of landholders who have undertaken a lifestyle-orientated in-migration to rural areas. For this reason, issues associated with rural land purchase for property speculation is beyond the research scope. This includes property purchased and managed through landscaping work (tree planting) to increase property prices, as well as property that is deliberately neglected to reduce ecological values, so future land development might attract lesser environmental regulation (Parbary et al., 2008).

Secondly, while I discuss absentee property ownership as a part of the rural-amenity migration process, absenteeism is not a key research focus. As I will discuss in the limitations section of Chapter 4, this is a result of research recruitment difficulties, rather than a conscious, pre-determined study objective. It is important to note this early on, however, as I do not draw heavily on absenteeism as a theme as the thesis progresses. Reflections on how this

research may open up future research opportunities for work on absentee property management challenges are made in the final chapter.

Transitions of rural ownership and land use – Australia and abroad

While research, policy and media interest in rural landscape change has increased in recent years, amenity migration has been widely observable in Australia since the early 1970s (Curry et al., 2001). This migration was facilitated by a decline in agricultural production stretching back to the 1970s, as state-sponsored post-WWII agricultural expansion was wound back. The gradual rescinding of subsidies for agriculture in order to promote a more flexible and independent sector, combined with global commodity over-supply, declining terms of trade and emerging environmental regulation, changed the dynamic of rural landscapes (Argent, 2002). Regions once the domain of agriculture have transitioned to a multitude of uses in which the consumptive or amenity characteristics (coastal views, for example) now compete with production values (Holmes, 2006; Tonts, Argent, & Plummer 2011).

The socio-economic and land use assemblages resulting from rural-amenity migration have been described as a process of multifunctional or post-productivist land use transition (Wilson, 2006). While these descriptors have been applied across the post-industrial world, where similar retreats from production-orientated pastoral uses have been observed (Gosnell 2011; Marsden, 2003), their application is not without controversy. The term 'post-productivist' has received notable critique in the UK (Marsden, 2003) and Australia (Argent, 2002), with suggestion that it oversimplifies land use shifts in rural landscapes. The patchy persistence of agriculture in regions of high amenity (Barr, 2005) suggests multifunctionality is most applicable for describing the diversifying trajectories of land use visible in rural-amenity landscapes (Cocklin & Dibden, 2006). Figure 2 provides a coarse overview of the most popular regions for rural in-migration in south-eastern Australia.

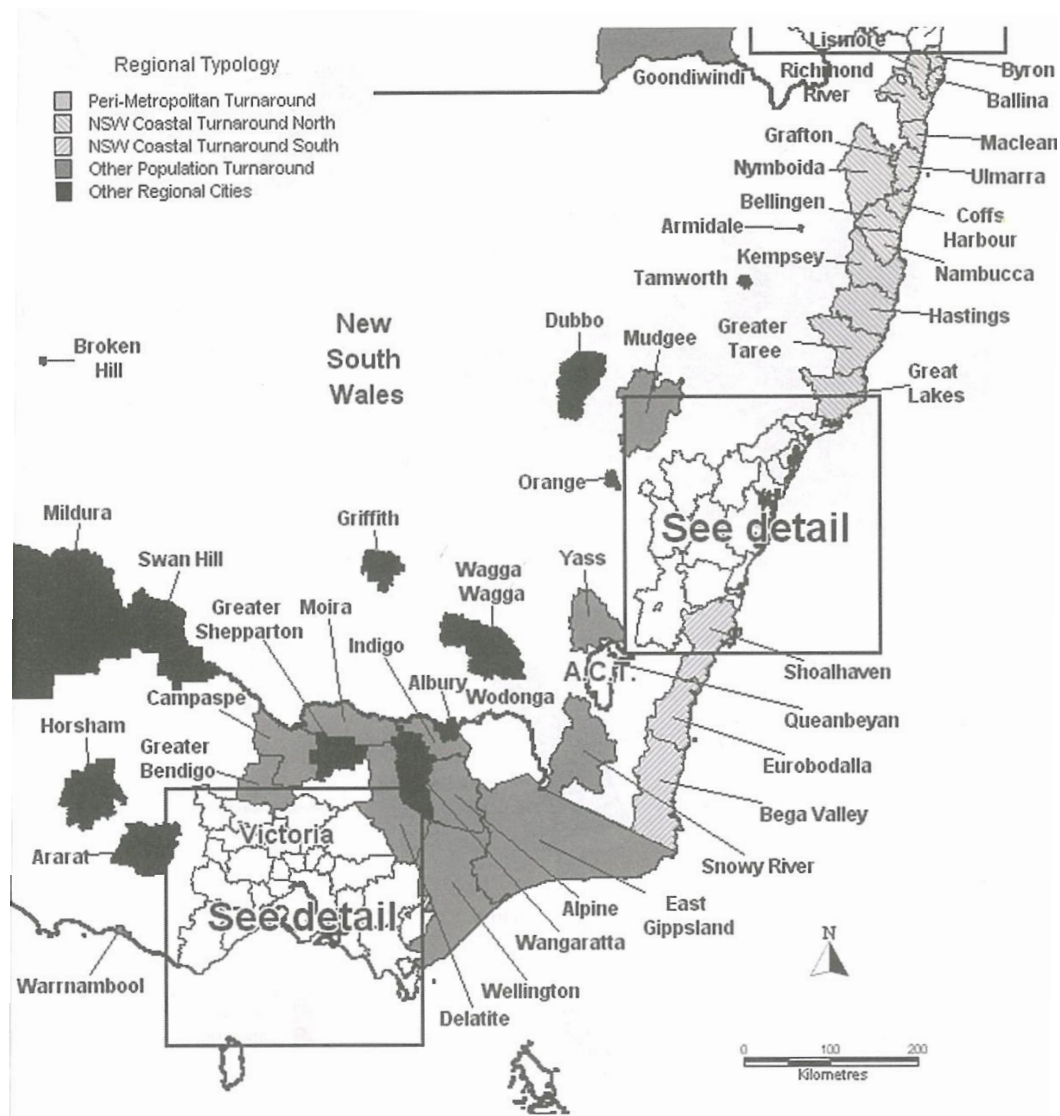


Figure 2. The extent south-eastern Australia undergoing some form of in-migration for lifestyle-orientated reasons (Adapted from Burnley and Murphy, 2004).

Rural-amenity migration in Australia has been most common on the eastern seaboard and in the southwest of Western Australia, in close proximity to capital cities and larger regional centres (Burnley & Murphy, 2004). Improved access to urban centres by road has made the prospect of living in the country and working in the city increasingly attractive. Not surprisingly then, the most rapid land use transitions to date have occurred along major transport routes (Hugo 1994; Buxton et al 2006). When considering the subsequent ecological implications, it is important to note that improved roadways have opened up semi-natural hinterland regions around cities for settlement. Due to elevation, poor soils or access difficulties, some of these regions do not have a strong

history of resource use, meaning they retained many natural values that made them attractive for in-migrants (Buxton et al., 2006).

In addition to the above aspects, increasing costs associated with urban living in Australia since the early 1990s, notably metropolitan house prices, have made rural living an attractive option (Hugo & Bell, 1998). This is a feature of amenity-migration in Australia that is not so apparent in the US and UK. 'Exurban' migration in North America is typically framed as the buy-up of rural land by wealthy individuals who have accumulated capital in the city and seek to deploy it in the country (Walker & Fortmann, 2003). This characterisation shares much in common with the extensive rural gentrification literature that has emanated from Britain (Cloke & Jones, 1990; Marsden, 2003; Phillips, 1993), encompassing the displacement of working rural landscapes and those who work them by middle and upper class in-migrants looking to escape the city.

While gentrification of rural landscapes is certainly occurring in Australia, with absentee and retire property ownership on the increase (Mendham & Curtis, 2010), this transition is less closely associated with gentrification of the countryside by wealthy in-migrants (Burnley & Murphy, 2004; Race et al., 2010; Salt, 2004). The small population and vast land area of Australia compared to the UK, for example, has allowed for greater variability of land values in rural areas, meaning fewer people have been priced out of the market (Holmes, 2006). Indeed, an important generative component of amenity migration amongst early retirees in the 1970s was the availability of cheap land in close proximity to urban centres (Curry et al., 2001). While property prices have generally been on the rise in Australia, rural-amenity land prices remain competitive in relation to the urban property markets of capital cities, resulting in a relatively diverse socio-economic profile amongst newcomers to these regions (Ragusa, 2010).

Rural land ownership change in Australia has not simply been a case of counter-urbanisation (Hugo, 1994). A sole focus on people moving from city to country would ignore the large proportion of migration originating from *other* rural localities, a process Argent et al. (2011, p40) calls 'population redistribution as

[much as] counter-urbanisation'. Early rural settlements, especially those of inland Australia, were born out of proximal association with landscapes of productive value (Haberkorn et al., 2004). The redistribution of rural populations associated with declining agricultural production has seen migration from these places of low rural amenity to areas of high amenity. Thus, the 'non-metropolitan renaissance' (Hugo, 1994, p2) of recent decades can be characterised as a spatial redistribution of people away from both metropolitan centres and low amenity rural regions of declining productive value.

The diversification of land use interests away from primary production is reflected in the physical make-up of rural landscapes. The concept of a rural-amenity 'mosaic' has gained some traction as a means for describing the patchwork of persistent agriculture, amenity and ecological uses, and ad hoc development (Rickenbach & Kittredge, 2008; Robson & Berkes, 2011).

The romanticised notion of working pastoral landscapes – the rural idyll – can be a decisive draw card for in-migrants (Cadieux, 2011). Real estate advertisements like the one pictured in Figure 2.1 are intended to appeal to this notion of a serene country lifestyle. Nevertheless, these idyllic representations of pastoral Australia can differ from the reality of working landscapes. The uneven spatial and temporal retreat of agriculture has resulted in conflict between new and established residents over differing expectations of 'the rural' (Parbary et al., 2008). Hesitancy about trapping or shooting pest animals due to ethical concerns, and reticence about using chemicals like herbicides and pesticides to treat invasive weeds that pose a threat to farming, have been flashpoints for conflict in Victoria (Parbary et al., 2008) and the United States (Yung & Belsky, 2007).


Differing expectations of the rural have also been observed in the way landholders perceive the rights assigned by the ownership of private property. There is some indication that ownership of amenity property as a lifestyle translates to individualistic and recreational interpretations of land use – an attitude that suggests ownership implies complete land use autonomy (Cadieux,

2011; Yung & Belsky, 2007). This can conflict with existing social norms about collective responsibility for management of weeds across an agricultural landscape. A high degree of perceived autonomy ascribed by property rights has implications for how landholders learn about management through social interaction. I clarify different notions of property ownership as they apply to my research at the beginning of the next chapter.

[← BACK TO SEARCH RESULTS](#)

285 High Street, Violet Town, Vic 3669

\$120,000
Residential Land



Property Description

Surrender to the Spell of Country Life!
Create an idyllic lifestyle with this substantial land with Township

Open for Inspection
No inspections are currently

Figure 2.1. A representation of the rural idyll in real estate advertising. In-migrant desires for the ‘country life’ and its associated ‘idyllic lifestyle’ can conflict with the sights, sounds, smells and practices of productive farming (Source: www.realestate.com.au; search term ‘Violet Town, Victoria’ – 14/03/2012).

The increasing number of properties and actors in the landscape can make addressing landscape-scale conservation issues more complex. Indeed, the very

sense that productive rural land is being ‘carved up’ through subdivision for amenity-led development can lead to tension in rural communities (López-i-Gelats et al., 2009). The fragmentation of the landscape has also been a critical notion for informing debate regarding the ecological implications of this land use transition; following the description of the amenity characteristics of my study areas I turn specifically to the ecological implications of transitioning landscapes occupied by new social actors.

Case study area – hinterland regions of Melbourne

As noted above, the regions of Australia under amenity influence are numerous. The grant funding this research (Australian Research Council Linkage Project: LP0882780) necessitates a focus on the state of Victoria, given the local and state government partners on this project. Thus, Victoria was assessed for regions undergoing amenity land use transitions, in order to indentify potential study sites. As Figure 2.2 shows, large parts of the state are experiencing some form of ‘amenity influence’.

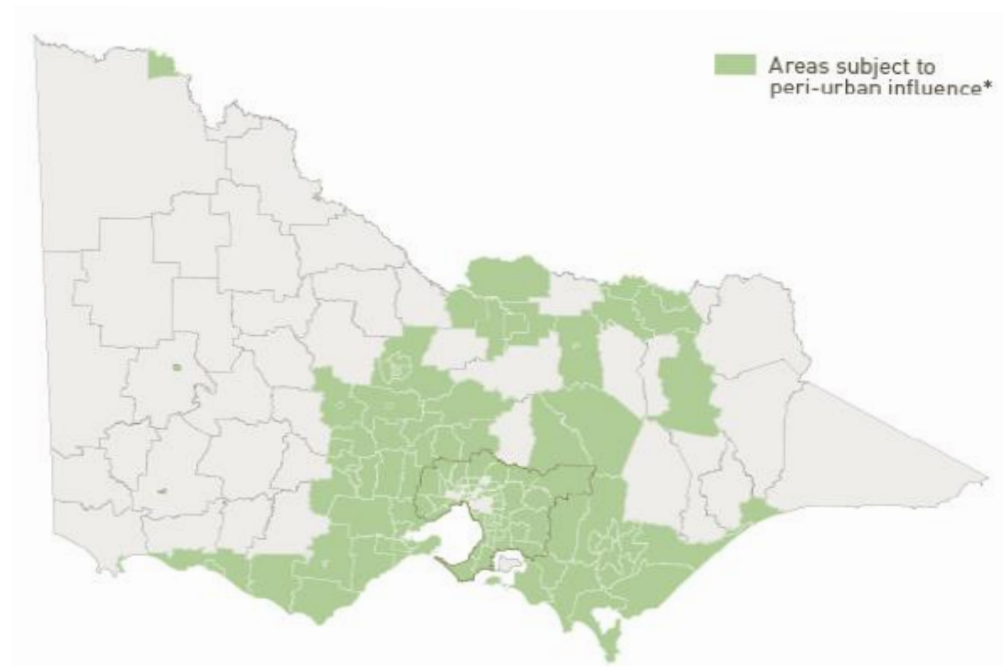


Figure 2.2. Areas deemed to be under amenity influence, 2006 (McKenzie, 2006 adapted from Houston, 2004). The criterion used to produce this map are more than 1.6 persons per hectare of private land, and over 60 per cent of the population as being employed ‘off-farm’. Greater Melbourne is the area inside the boundary at bottom-centre.

Recent policy (Parbary et al., 2008) and academic (Mendham & Curtis, 2010) research into land use transitions and their environmental implications in the hinterland regions around Melbourne provides a strong basis for situating this project in this same broad locality (See broad study area in Figure 1.1). While not all hinterland municipalities are represented, Figure 2.3 below provides a good depiction of the geographic regions surrounding Melbourne that are most impacted by amenity land use transitions.

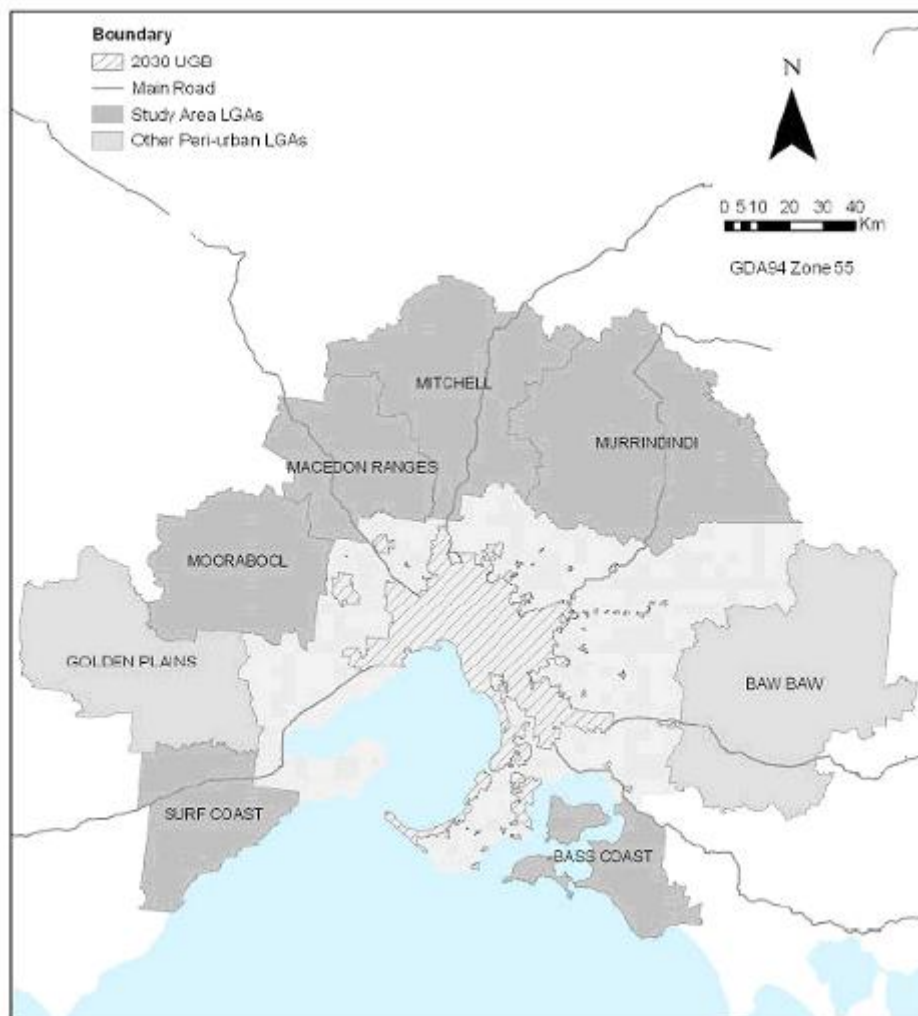


Figure 2.3. Adapted from Buxton et al. (2008). This map shows the municipalities belonging to the 'Peri-urban Group of Shire Councils' working group, which represents the interests of many of Melbourne's hinterland local governments.

Two study areas that best represent key characteristics of amenity-migration were selected from within Melbourne's hinterland. In the following section I describe four key characteristics of rural-amenity migration as reflected in these

regions. They are: 1) increasing population through in-migration, 2) increasing heterogeneity of property size through subdivision, 3) commutable distance to Melbourne/regional centres and 4) evidence of changing land use away from productive agriculture. I discuss the methodological dimensions of study area selection (including the need for the three voluntary conservation schemes outlined in Chapter 1 to be present) in Chapter 4.

Many of Melbourne's surrounding districts possess the characteristics of amenity in-migration described above. Population increase in rural locations around Melbourne provides a useful indicator of the trend towards increasing multifunctional land use. Parbary et al. (2008) also noted that property parcels in Melbourne's hinterland regions are a range of sizes, suggesting a diversity of land uses. Within this heterogeneity, 85 per cent of land parcels were between two and 40 hectares in size, indicating limited full-time farming. Moreover, the rise of amenity ownership in Victoria along regional transit routes (Buxton et al., 2008) shows many hinterland regions are within commutable distance of Melbourne or regional centres that could support professional vocations.

Bass Valley district

Located largely within the Bass Coast Shire Council, the Bass Valley has a strong local identity tied to the Bass River and the dairy farming that has traditionally defined the region (Figure 2.4). Despite a decline in dairying and a move to beef cattle and amenity uses, the Bass Valley retains a strong social identity (Beilin, 2007). The roll out of the EcoTender conservation scheme in the Bass Valley and surrounding district in 2008 made this an ideal research site for this project.

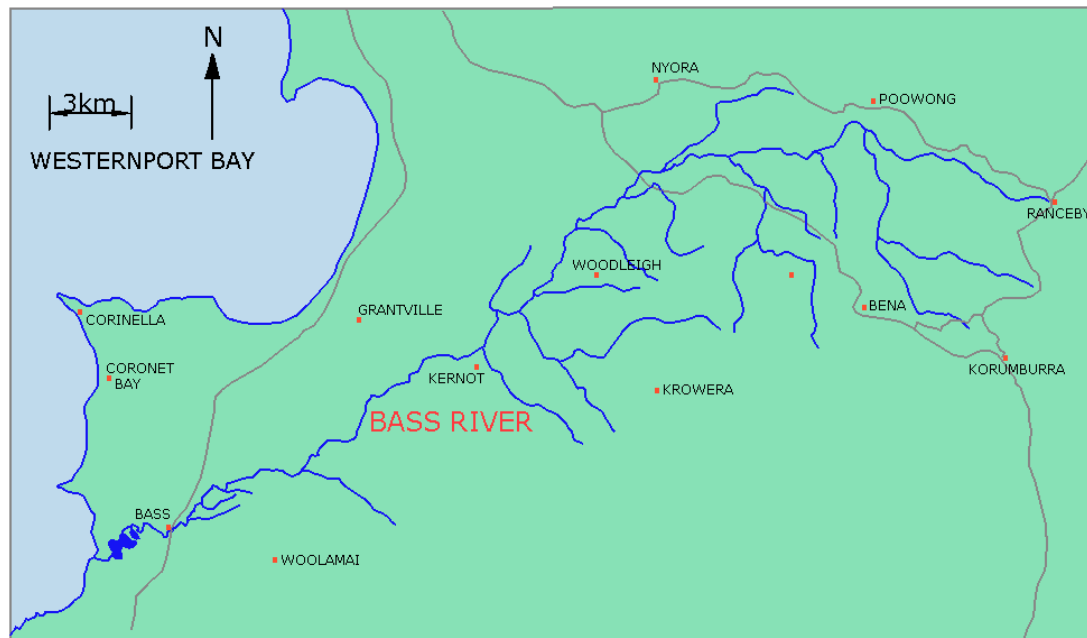


Figure 2.4. The Bass Valley and surrounding district. The Bass Coast Shire Council has jurisdiction over most of the Bass Valley, but the upper reaches of the watershed are administered by South Gippsland Shire Council.

Property and population characteristics

The Bass Coast Shire Council, which extends slightly beyond this specific study area, experienced population growth of 25 per cent between 1991 and 2006 (ABS, 2006). This is amongst the strongest recorded population growth amongst the municipalities that surround greater Melbourne (Buxton et al., 2008).

However, of greatest interest is the population growth in the ‘rural balance’ of the local government area. Between 1991 and 2006, the rural balance of Bass Coast Shire Council (the areas outside of towns with 200 people or more – Grantville, Bass, Coronet Bay and Corinella) has experienced a 20 per cent population increase (ABS, 2006). This indicates that in-migration through rural sub division is a strong driver of population growth. As McKenzie (2006) noted, it is population growth outside the small residential sub divisions in small rural towns that reveals the extent of land use transition.

Land use

Farming continues in and around the Bass Valley, but the focus has shifted towards less intensive uses as agriculture plays a reduced role in contributing to

household income. Indeed, only 18 per cent of landholders in the rural balance of Bass Coast Shire identified as being employed in agriculture or related work in 2006, down from 32 per cent in 1996 (ABS, 2006).

Vegetation and landscape

The Bass Valley region underwent some extensive land use changes prior to the current amenity migration. The region has a long tradition of resource exploitation that began with the clearance of much of the towering Gippsland forests to supply timber to Melbourne, then moved to farming (Beilin, 2007). The high annual rainfall made it ideal for dairying. Following WWII, government owned land was allocated to returned servicemen for farming; most plots in the district were around 100 acres (Wells, 1984). These properties provided a living at the time, however declining terms of trade have meant 100 acres is no longer a viable size for a farm in this region (Barr, 2005). Furthermore, farmers wishing to expand their operations cannot compete with the prices amenity migrants are prepared to pay.

Despite extensive vegetation clearance since European settlement in the Bass Valley since, around 20 per cent of its 'original' pre-settlement remnant vegetation cover remains (PPWCMA, 2008). This includes a range of vegetation communities that have some form of threatened status under state and federal legislation. Recent decades have also seen a concerted local effort to revegetate farmland, given the increasing impacts of land slippage and erosion on the bare upland slopes.

East Corangamite catchment

The Corangamite catchment is experiencing considerable in-migration given the attraction of Victoria's surf coast as a lifestyle destination and its proximity to regional centres and Melbourne. Proximity to Melbourne is especially relevant for the eastern section of the catchment (Depicted in Figure 2.5 below). This area, primarily encompassing the municipalities of Surf Coast and Golden Plains (Figure 2.3), constituted the second study site within Melbourne's hinterland.

Corangamite catchment (Geelong-Ballarat corridor)



Figure 2.5 (left). (Adapted from CCMA 2008). The outlined section shows the study site within the Corangamite catchment. This 'corridor' between the regional centres of Geelong (south) and Ballarat (north) has experienced strong population growth in recent decades, as increasing property values have marginalised grazing and cropping. The small size of property parcels (compared to the rest of the catchment) has reduced farm competitiveness, leading to its sale to lifestyle-orientated owners.



Figure 2.6 (above). The landscape in this region of Victoria is characterised by fragile soils and open woodland vegetation. This image shows an area that regenerated after complete clearance during the 1850s gold rush. Much of the vegetation in the middle section of the study area is re-growth from this period.

Land use

Much of the open forest vegetation in the Corangamite catchment was cleared for mining and settlement during Victoria's gold rush (mid 1880s to early 1900s). The expansive native grasslands were utilised for agriculture to support the burgeoning population. Fragile soils and variable rainfall made farming a much more difficult task in Corangamite than for the dairy farmers of the Bass Valley. Consequently, agriculture in this region has centred on sheep grazing, with selective cropping and forestry plantations in the more productive floodplain areas (DPI, 2011). The gold rush and sheep farming still have a prominent place in the landscape, with the remnants of gold rush infrastructure and settlement still visible. As in the Bass Valley, concerted efforts have been made by government and community in the last few decades to re-establish vegetation, improve waterway health and restore ecosystem function (CCMA, 2011).

Property and population characteristics

I chose the eastern section of this catchment as a site for my research due to the strength of population growth between the regional centres of Ballarat and Geelong (CCMA, 2003). This 'corridor' of amenity transition follows a major highway between Geelong and Ballarat, whilst still being within commutable distance to Melbourne and its surrounds. The price of land along this corridor is nearly twice the price per hectare of land of similar size and productive potential further to the west of the catchment, suggesting a high amenity premium in this region (CCMA, 2003; Mendham & Curtis, 2010).

Over 60 per cent of residents in the Corangamite region rely on off-farm work for the majority of their income, with many commuting to Melbourne or its outer suburbs for work (Buxton et al., 2006). The intensifying amenity transition has increased property prices, making the relatively small farming properties that still persist even less economically viable. This has coincided with a period of significant change for farming families, in that a large proportion of farmers in Victoria are nearing retirement age (Barr, 2005). The amenity premium on properties around Geelong and Ballarat means property sale is an attractive

option for securing retirement, leading to predictions of a property turn-over nearing 50 per cent in this region over the next few decades (Mendham & Curtis, 2010).

Vegetation and landscape

As depicted in Figure 2.6 above, the upland regions of the study area are home to a distinctive open forest type dominated by yellow gums (*Eucalyptus leucoxylon*). Much of this forest is re-growth from the gold rush, with only the most inaccessible upland areas retaining substantial patches of pre-settlement forest. While the Corangamite catchment retains around 25 per cent of its pre-settlement vegetation cover, this figure would be substantially lower for the Geelong-Ballarat corridor. The flatland areas through much of the corridor were home to open grassland vegetation that proved sensitive to intensive grazing and farming practices. Indeed, only 3.6 per cent of the original plains grassland communities remain intact (CCMA, 2003).

The environmental discourse of rural-amenity landscapes

The process of transition towards a multifunctional rural landscape in many parts of Australia has raised both public and academic debate regarding the implications for biodiversity conservation. Given the widespread extent of amenity-led migration, the potential for new actors and shifting land uses to influence biodiversity on private land is considerable. While natural amenity is a strong draw card, the potential for natural values to be 'loved to death' by consumptive in-migration has raised environmental concerns. I begin the following section by probing this narrative, before presenting the counterpoint of potential positive ecological outcomes from amenity transitions.

A narrative of 'loss' – the ecological consequences of in-migration

To date, the dominant narrative around ecological conservation in rural amenity landscapes is one of threatening processes and biodiversity loss (Argent et al., 2010; Knoot et al., 2010; Lynch, 2006). Negative ecological impacts have been

framed in terms of habitat fragmentation through the subdivision and settlement of rural and semi-natural land. This fragmentation is occurring as larger properties are sub divided into smaller ones, more fence lines are constructed, and more flora and fauna are lost to clearance for dwellings and the associated space needed for lifestyle activities (fire protection, outbuildings, pets, lawn) (Lynch, 2006). This process can be framed as an ecological simplification of the landscape due to a mismatch between the scale at which species persist (landscape) and the reduced scale of rural-residential development (Gill et al., 2008). In this sense, the ecological impacts of rural-amenity migration in the academic literature are typically framed in spatial terms, heavily centred on the property parcel as an increasingly problematic space for conservation.

This narrative of loss has come to encompass amenity migrants themselves, with concern regarding the capacity of landholders to manage biodiversity in the absence of a practical farming background (Pannell et al., 2006). As consumers of amenity, in-migrants have been portrayed as more interested in the aesthetic benefits provided by nature than the ecological benefits (Van Auken, 2010). Thus, preserving or enhancing landscape vistas may be seen as a higher priority for amenity in-migrants than biodiversity-focused land management. (In the Midwestern United States, the decline of oak forests on private land has been advanced by landholders' unwillingness to undertake the aesthetically unpleasant task of clear-cutting maple to allow oak regeneration to occur (Knoot et al., 2010).) The absence of management of invasive weeds by some new in-migrants, especially weeds which may impact on agricultural production, demonstrates further concern that biodiversity is being degraded by amenity migrants (Klepeis et al., 2009). Apart from a lack of knowledge about weed species, landholders may lack the motivation to undertake the less glamorous task of removing invasive plants, preferring instead to concentrate on enjoying the other amenity values their land presents (Parbary et al., 2008).

Indeed, even for those landholders who enjoy active nature interaction on their property, the 'green thumb' tasks of tree planting may well take precedence over the less appealing process of weed management (Parbary et al., 2008). Evidently,

amenity in-migrants can view management as a type of recreational pursuit for personal enjoyment, rather than part of responsible land ownership (Urquhart & Courtney, 2011, p542). Thus, while recent in-migrants can have a stronger interest in conservation issues than established farmers, limited knowledge, lesser capacity and differing values may mean this interest does not translate to on-ground ecological benefit.

The diversification of management regimes accompanying new amenity actors in the Australian landscape has raised concerns about coordination between landholders for cross-boundary management efforts. A desire to pursue recreational nature management may well be linked to a drop in interest in collective action groups like Landcare in some parts of Australia (Mendham & Curtis, 2010). The focus on conserving in private on one's property (Gill et al., 2010) away from community conservation initiatives may be furthering the divisions and animosity between 'new' and 'old' residents mentioned above.

While ecological impacts and social conflicts associated with rural-amenity migration are observable in many semi-natural rural localities across Victoria and Australia, there are other changes to the physical landscape that hint at a more complex picture of *changing* ecologies as opposed to vanishing ones.

The production of new ecologies – a positive counter-narrative?

Research suggesting the potential for positive ecological outcomes through rural-amenity migration runs counter to the prevailing narrative of fragmentation and loss. In terms of physical landscape change, evidence from North America (Walker et al., 2003), Central America (DeClerck et al., 2010) and Australia (Buxton et al., 2006) suggests that vegetation cover has increased in rural-amenity regions as they transition away from farming. Through a combination of active restoration, facilitated regeneration (through fencing off paddocks to allow land to rehabilitate) and abandonment, forests have been slowly returning to grazing lands. Indeed, some in-migrants appear to be purchasing land with the express intention of rehabilitating it to a 'natural' state

(Parbary et al., 2008) There is also evidence that amenity transitions do not always result in property subdivision, with ranches in parts of America's Midwest remaining largely intact after being sold to amenity migrants (Gosnell, Haggerty & Travis, 2006).

Framing ecological impacts as inherently negative also carries an assumption about the state of the landscape prior to an upturn in amenity migration. To consider ecological impacts, we must take into account what these landscapes are transitioning from (Walker, 2011). As Walker (2011) notes, the biodiversity impact of turning heavily extracted broad acre farming or logging areas into rural residential property is entirely different to the conversion of intact woodlands to lifestyle properties. This point exposes the limited attention being paid to the land use histories and ecological legacies of the regions in which amenity migration is taking place. While the need for research on temporality in shaping landholder management practice is picked up in the following chapter, Figure 2.7 shows how some amenity migrants have generated some positive ecological outcomes through a tempering of productive land use.



Figure 2.7. Photographs (taken 10 years apart) of a property north of Melbourne. After many decades of farming the cessation of agriculture in 1990 combined with weed control has allowed the indigenous vegetation to flourish from the seeds of remnant trees (Sourced from Victorian Land for Wildlife Newsletter; Volume 8, No 1, p7).

In-migrants, as social actors, can be beneficial for conservation and not simply be catalysts for conflict over land use, as noted above. New residents can bring enthusiasm for conservation issues and an enhanced sense of ecological stewardship, igniting lagging interest within existing communities (Jones, Fly, &

Talley 2003). New sources of enthusiasm within communities can be welcomed, as years of battling the same natural resource challenges can lead to 'burnout' amongst even the most committed long-term residents. This is especially relevant given the increasing average age of rural communities – especially in Australia – raising questions about the ongoing capacity of long-term residents to continue their management efforts (Barr, 2005). Positive contributions from 'outsiders' have been pivotal to multifunctional transitions in agricultural practice, with challenges to the status quo often incited by in migrants (Pretty, 2002; Wilson, 2008). The discordance between the potential positive and negative conservation implications of changing social dynamics identified above suggests the need for further research – I turn to how such an interrogation can be framed in the next chapter.

From an ecological perspective, amenity in-migrants can have conservation aspirations for their properties that are not bound by traditional approaches to land management (Mendham & Curtis, 2010). A lesser need to derive income from the land, combined with strong environmental stewardship motives, may provide more opportunity to experiment and innovate with ecological restoration than is possible for primary producers. In this light, amenity migrants can be seen as change agents that impact the ecologies of rural landscapes in ways that are not exclusively negative.

In highlighting potential ecological positives of rural land use and ownership transitions, I am not intending to deny nor dismiss negative ecological impacts. What this focus does serve to do, however, is highlight the problematic nature of thinking about amenity migration as a wholly negative or positive phenomenon. Rather, it is evident that a range of dynamic landscape and ecological changes are resulting from the migration of amenity-orientated landholders into regions formerly the domain of productive agriculture (Barr, 2005; Holmes, 2006; Holmes, 2010; Gill et al., 2010).

In recognising the complexity of these in-migration-driven landscape and ecological changes, interesting parallels can be drawn with the shifting discourse

around ranching (farming) in the American West. The past decade has seen a gradual shift away from perceptions of ranching as uniformly negative for the ecologies of the Midwest (Gosnell et al., 2006; Knight, 2007; Sayre, 2002). This shift has recognised that grazing can have positive ecological benefits in the form of maintaining grasslands that support endangered species (Sayre, 2002), a point long recognised in Europe, where grazing has been an integral part of ecosystem function for over a century (Saltzman, Head, & Stenseke, 2011). Indeed, some efforts to remove grazing and restore ecosystems to their 'original' condition have had perverse impacts on ecological function (Sayre, 2002). Departing from homogenous classifications of ranching has resulted in a more intent focus on the ecological consequences of ranchers' 'relationship with the land' (Knight, 2007, p9). In other words, locating the *practice* of ranching in a social, historical and biophysical context can provide new understandings of ecologies in farming landscapes (Sayre, 2002).

This changing discourse around ranching hints at the potential opportunity for pursuing a more nuanced avenue for investigating the actors and ecologies of rural-amenity landscapes. To date, landholder relationships with the landscape and with other social actors has been largely absent from the ecological discourse of rural-amenity transitions (for notable exceptions, see Klepeis et al., 2009 and Gill et al., 2010). Analysing practices and their outcomes in light of these relationships represents an avenue for advancing conservation research in rural-amenity landscapes. Indeed, how can we hope to understand the processes that are making and re-making landscapes (like those seen in Figure 2.7) without scrutinising land management practices (Holmes, 2006; Gill et al., 2010; Wilson, 2008)?

Landholder management practice

Knowledge of how landholders interact with nature through land management remains largely unexplored in relation to amenity migration (Klepeis et al., 2009), yet it is in these practices that insights can be gained into the socio-cultural and material influences that are producing new ecologies (Holmes,

2006). As Halfacree (2006, p309) noted in research on amenity migration, interrogating the 'relationships between land and everyday life' is critical for comprehending processes of land use change. In this section I discuss how recent scholarship on human-nature interrelationships in rural-amenity landscapes presents an interesting avenue for pursuing research into landholder management practice (Abrams et al., 2012; Gill et al., 2010; Gosnell et al., 2006; Klepeis et al., 2009).

Landscapes in which amenity migration is occurring have their own 'historical, cultural, and physiographic idiosyncrasies' (Gosnell et al., 2006, p756); how the aspirations of in-migrants mesh with these idiosyncrasies has considerable implications for conservation outcomes. In rural-amenity landscapes to the south of Sydney, Gill et al (2010) identified that landholders were attempting to facilitate the re-establishment of the region's original rainforest vegetation. In so doing, however, they were removing another native species (black wattle – *acacia mearnsii*) in the false belief it was inhibiting rainforest reestablishment. Gill et al. also showed how some landholders had a preference for native overstorey vegetation (trees) over native understorey vegetation (shrubs), resulting in the propagation of the former and the removal of the latter. In this case, exploring landholder practice in this case showed how novel and compromised ecological outcomes were occurring as landholders navigated a range of amenity aspirations.

The interplay between people and material environments serves to highlight the role of temporal dimensions in the production of new ecologies. In the context of backyard gardens, the process of observing and labouring in the landscape can shape ideas about which species 'belong' there (Head & Muir, 2006). These interactions can result in attempts at species purification, in which non-indigenous species are removed, as well as the creation of 'hybrid' landscapes, in which native and non-native species are interspersed (Head & Muir, 2006). While not exclusive a rural-amenity context, this phenomenon correlates with the observation that amenity-migrants can import their own ideas about nature through the planting of exotic or ornamental flora (Cadieux, 2011). Importing

nature may well be occurring in parallel with the desires of some amenity in-migrants to 'bring back' native ecologies that have been lost (Yung & Belsky, 2007). Scrutinising management practices occurring on private property can bring insight to how these potentially competing conceptualisations of nature are navigated by landholders.

Embracing human-nature interactions avoids what has been a considerable oversight in conceptualising rural-amenity ecological transitions: the treatment of the physical landscape as a blank canvas. That is, treating the environment as simply a recipient of autonomous human action, with limited thought for how that environment might shape, propagate or complicate management (Tilley, 2006). Material culture studies, from which I draw in the following chapter, is particularly useful for showing how people shape landscapes, but landscapes also shape people (Gosden & Head, 1994; Tilley, 2004). Similarly, human geography and political ecology research has identified how lawns (Robbins 2007) and trees (Cloke & Jones, 2004; Jones & Cloke, 2008) can be agents of change and continuity. By making space for material relations in this way, we can shed light on how the histories and geographies of rural-amenity landscapes shape management practice.

Embracing the agency of landscapes challenges the traditional view of autonomous human action and decision-making in pro-conservation behaviour research (Robbins, 2007) – that is, a view of individuals as agents acting in isolation of contextual worlds. Thus, making room for the landscape as an agent of influence has clear implications for how we conceptualise land management as a process, as well as how we determine its outcomes. Recent calls to move beyond a sole focus on the 'amenity migrant' in understanding environmental change in this specific field (Abrams et al., 2012) are timely for the objectives of my research.

Before embarking on the task of conceptualising management practice in Chapter 3, it is important to provide some background on the voluntary conservation schemes that I will explore in my research, including how they have

been implemented in rural-amenity landscapes. Furthermore, I reflect on the implications of a management practice focus for understanding how landholders engage with voluntary conservation schemes.

The policy realm – voluntary conservation schemes in rural-amenity landscapes

A discussion of the background to biodiversity conservation issues in rural-amenity landscapes would not be complete without reflecting on the role of policy interventions in addressing these issues across private land tenure. The traditional approach of Western governments for protecting conservation values on private land has been through regulatory or legislative prescriptions (Cocklin et al., 2007). These efforts emerged in part through a concern about the sustainability of productive land use practices (Argent, 2002), but have intensified amidst recognition that the global protected area network will never be sizeable enough to protect the world's ecological diversity (Gallo et al., 2008). Moreover, existing public land reserves have a tendency to be located in upland regions of poor soil quality and low accessibility for agriculture (Platt & Ahern, 1995). Vegetation communities and fauna species that have niches in lowland, coastal and grassland environments – the regions most popular for agriculture and settlement – are over-represented on private land (Stephens, 2001). In Victoria, 60 per cent of the vegetation communities found on private land have 'threatened' vegetation status (listed as rare, vulnerable or endanger) (DSE, 2010a).

While environmental regulation impacting private land in Australia has a relatively short history, private landholders – especially those in productive farming contexts – have had a tendency to perceive legislative intervention as undermining their property rights (Doremus, 2003). As an example, considerable public debate has emerged around recent efforts to restrict the rights of landholders in Queensland to clear native vegetation regrowth from their land to maintain pasture for grazing. Concerns have been raised regarding the potential for regulatory interventions to act as a perverse incentive, inciting

‘panic clearing’ where individuals remove native vegetation for fear of attracting restrictions on their land use should an endangered species be discovered (Brook, Zint & Young, 2003).

Paralleling these environmental conflicts is increasing recognition that the challenge of encouraging more ecologically sensitive land use practices is insurmountable for regulatory policy in isolation (Langpap, 2006). Voluntary conservation initiatives designed to offer education, extension (or outreach), and information to landholders have sought to fill this gap (Cocklin et al., 2007), Victoria has had a strong association with voluntary biodiversity initiatives, with the passing of the *Victorian Conservation Trust Act* (1972), the establishment of Land for Wildlife in 1981 and the Landcare program in 1989 (Landcare is a community-based natural resource management programme under which landholders and communities come together at the local scale to collectively contribute to environmental management and agricultural challenges (Prager & Vanclay, 2010)). It is no coincidence that the popularity of voluntary schemes has coincided with the decreasing role of the state in environmental management in Australia, as responsibility for environment management has increasingly devolved to local and regional government (Marshall, 2008).

In recent decades voluntary schemes emanating from both government and non-government institutions proliferated in an effort to facilitate the conservation and enhancement of biodiversity values on private land. These schemes use a range of policy mechanisms encompassing binding legal agreements (easements/covenants), market based instruments (MBIs) and suasion measures (training, education and information) (Cocklin et al., 2007). As noted in Chapter 1, the three schemes I focus on in my thesis (Trust for Nature covenants, Land for Wildlife and EcoTender) reflect these three different policy mechanisms used in voluntary schemes. (It is important to note here that I have consciously chosen not to explore the Landcare program noted above, despite its prominence as a voluntary initiative in Australia. Having received considerable research attention over the years (see Prager & Vanclay, 2010), and originating as

predominantly a farmer-driven phenomenon (Lockie, 2001), I chose to examine a different suite of schemes.)

The most recent phase in voluntary programs is the increasing application of market-based instruments in order to leverage ecological gains from landholders (Stoneham et al., 2000; Stoneham, Chaudhri, Ha, & Strappazzon, 2003). This move has been depicted as a shift in emphasis from a roll back of statutory intervention amidst an increasingly neo-liberal policy environment, towards the rolling out of programs that accord with a neoliberal governance mentality (Lockie and Higgins, 2007). This shift has been accompanied by a rising discourse around 'ecosystem services' (Muradian, Corbera, Pascual, Kosoy, & May, 2010). Viewing biodiversity on private land as contributing a service to the community ('public good' value), positions financial incentives as a means for reducing the cost burden of ecological management on landholders, as the whole of society benefits from that management (Stoneham et al., 2000).

These structural governance changes and the increasing evolution of voluntary conservation schemes are not unique to Australia, with similar patterns evident in Europe (Fish, Seymour & Watkins, 2003; Wilson & Hart, 2001) and North America (Gosnell, 2011). This increasing emphasis on voluntary initiatives justifies the need for research into how they are being operationalised by landholders and the ecological outcomes they produce (Cooke, Langford, Gordon & Bekessy, 2012). This is not to dismiss the contribution of statutory policy and planning efforts to achieve conservation outcomes (Nie, 2008; Wallace, Theobald, Ernst & King, 2008); however, voluntary schemes require a concerted research focus given the relative lack of knowledge regarding how and why people participate in them. Indeed, we have surprisingly little knowledge of how the different mechanisms of these schemes attract landholders, nor how these schemes impact on their management practice (Merenlender et al., 2004). Understanding these policy-practice connections is especially relevant in rural-amenity landscapes, given the potential links between the proliferation of voluntary schemes and the amenity migration process.

Voluntary schemes in rural-amenity regions

One of the drivers of increased adoption and interest in voluntary conservation initiatives has been the diversification of land use interests accompanying rural in-migration (Pasquini et al., 2010). The expanding popularity of conservation easements across the US in the last two decades has been partly associated with these land use transitions (Merenlender & Rissman, 2008). A similar trend is evident in Victoria, with conservation covenants over-represented in rural-amenity areas and amongst absentee landholders (Fitzsimons & Wescott, 2001; Harrington, Lane, & Mercer, 2006). The restrictions that conservation covenants can place on land use may actually be desired by conservation-minded amenity migrants, whereas farmers are more hesitant about potential restrictions on their productive capacity (Fischer & Bliss, 2008; Pasquini et al., 2010; Wallace et al., 2008).

To date, research into rural-amenity migration has existed largely in isolation from research into voluntary conservation schemes. Questions of how and why amenity landholders participate (or not) in conservation schemes have been largely peripheral (Gill et al., 2010; Mendham & Curtis, 2010). There has been some suggestion that amenity in-migrants are less interested in community-based initiatives than farmers, due to the inward property focus noted above. The fact that Land for Wildlife has proven popular in Victorian amenity regions – a non-binding scheme that provides extension to landholders at an individual level – may support this notion (Platt & Ahern, 1995).

Like voluntary schemes more generally, participation in MBI programs in amenity regions has received little analysis thus far (Gosnell, 2011). Suffice to say that from program evaluations in Victoria, it appears as if the financial inducement for participation is not always the most important motivator for landholder involvement (DSE, 2006). This conclusion reflects findings from family forestry programs and surveys of landholders who own property containing endangered species habitat, where extension was valued more highly than financial incentives for management (Kilgore, Greene, Jacobson, & Straka, 2007; Langpap, 2004). What has emerged is a patchy picture of why some

landholders are drawn to particular conservation schemes, but little knowledge of how participation is enacted on-property.

Exploring how voluntary conservation schemes are operationalised by landholders to produce rural-amenity ecologies presents a necessary departure from the popular metric of simply measuring program take-up. At present, the number of participants in a scheme is the default measure of its relative success (Wilson & Hart, 2001). While this is useful for measuring a scheme's popularity, it tells us little of the landscape outcomes a scheme is facilitating. Attention must be paid to the 'quality' of participation and not just the 'quantity' in assessing environmental outcomes (Wilson & Hart, 2001). This means greater focus on how participation in voluntary schemes is expressed by program participants on their properties. An exploration of how these schemes are materialised in the landscape is needed to contextualise levels of participation as a measure of program function, and to explore how schemes form part of the social and material interrelationships that contribute to management practice. As such, in the following chapter I seek to reconceptualise management practice, but demonstrate how such a reconceptualisation can enhance existing knowledge of voluntary conservation scheme implementation.

Conclusion

In this chapter I highlighted how understandings of ecological transitions in rural-amenity landscapes have progressed with limited attention to how land management is practiced by the inhabitants of these landscapes. In making this case I drew on research probing the complex interactions between landscapes and the people who dwell within them for shaping management practices and their outcomes. In doing so, I demonstrated that a focus on management practice must be attentive to the contexts in which land management practices are conducted. Thus, my key contribution in this chapter was to show that landscapes must be recognised as active agents in shaping land management practices.

Highlighting the agency of the landscape raised some notable challenges for my research. By bringing an agency to the landscape, the histories and geographies of rural-amenity regions take on a more active presence in understandings of landholder practice. As I have shown, these spatial and temporal dimensions are critical to the way rural-amenity transitions have been framed; the parcelisation of the landscape (spatial) and transitions of land use (temporal) are notable examples. Moreover, embracing the landscape in this way has provided a context for the emergence of human agency, challenging traditional depictions of social agents as operating outside of a relational world.

The need to be attentive to relational influences has implications for the social interactions that permeate management. Divergent findings on the extent of social cohesion and knowledge exchange in rural-amenity landscapes indicate a complex social dynamic. Cultural preferences and perspectives related to management that are imported by amenity landholders only add to this complexity. In acknowledging this dynamic, this chapter provides a starting point for taking account of social context, alongside material relations, in contributing to management practice.

Finally, I have highlighted the opportunity for combining attention to landholder management practice with an exploration of how landholders are adopting voluntary conservation schemes. The increasing popularity of voluntary initiatives as part of a developing policy emphasis on private land conservation, combined with the surprisingly little knowledge of how these programs are enacted – especially in rural-amenity landscapes – shows the potential for important policy insights for research in this area.

Given the conclusions presented above, the task of the next chapter is to develop a conceptual framework for interrogating management practice. This framework must clarify human and non-human agency, define the spatial and temporal dimensions relevant to my research, and encompass a perspective on learning and knowledge exchange.

Chapter 3

The dwelt human-environment perspective: a conceptual framing of landholder management practice

Introduction

The objective of this chapter is to develop a conceptual framework for interrogating landholder management practice. Extending from the previous chapter, this framework addresses three key elements. It will 1) characterise a model of human agency that encompasses human-nature interactions, 2) clarify the spatio-temporal dimensions that are of interest for my research, and 3) present a notion of learning and knowledge exchange through social interaction. Developing this framing of management encourages reflection on what is being described by the term 'management practice'. Thus, the final task of this chapter in setting the foundation for this research is to define management practice as more than praxis. An outline of these concepts and a brief discussion of their implications for my thesis are introduced below. (Accompanying this conceptual task is a need to clarify the multiple meanings of 'property' in private land conservation research; I do this at the end of the introduction.)

Pro-environment behaviour research has traditionally positioned agency as belonging to rational human beings (Kasper, 2009). As mentioned in the previous chapter, this has meant isolating human agents from the social and biophysical worlds they inhabit. This is a significant oversight, as 'people come to (environmental) issues through particular things that matter to them... (t)he 'human' and 'relational' aspects of the environment...' (Macnaghten, 2008, p80). I believe there is an imperative to examine the interactions of people *in* landscapes, in the places where engagements relevant to land management occur. As such, a model of agency that positions human beings as always embedded in the material landscape represents a less anthropocentric

perspective on the emergence of management practice than is traditionally applied.

To achieve this re-positioning I turn to Heidegger's (1971) dwelling perspective. The dwelling concept suggests management practice will emerge through active involvement with the environments of our everyday lives (Cloe & Jones, 2001; Ingold, 2000; Macnaghten, 2008). Moreover, dwelling draws attention to how landscapes are co-constructed through human-nature interactions over time – the 'embodied character of human experience of the environment' (Macnaghten, 2008, p71). As such, dwelling also draws attention to the agency of the landscape as a structuring influence on management. This emphasises how being *in* the landscape can shape understandings of ecological process, as well as how the landscape itself can be generator of management practice. As a result I look to clarify how I conceptualise non-human agency as an influence on management practice (see introduction to landscape legacy below).

In order to avoid the bounded focus on local processes espoused in Heidegger's original conception of dwelling, I look to make room for wider social and material relations in management practice (Massey, 2005). In doing so, I borrow from SES thinking to expand the dwelling perspective. SES's sensitivity to dynamic cross-scale social and ecological interactions for influencing practice makes it useful for this purpose (Cote & Nightingale, 2011). Moreover, the focus of SES scholarship on the social mechanisms that underpin ecosystem management processes offers a range of concepts that can contribute to my research. I term the integration of dwelling and SES the 'dwelt human-environment perspective'.

SES thinking makes another important contribution to this thesis by allowing me to characterise the implementation context of environmental policy as a *coupled* social-ecological setting. This perspective helps to frame private land conservation policy as being applied in spaces and places that are inhabited by people, rather than exclusively ecological systems. The selective use of SES thinking takes advantage of the strengths of this heuristic (scalar conceptions

and policy application) whilst avoiding some of the weaknesses (these will be discussed later, but centre on vaguely defined notions of the 'social system' and subservience of social dimensions to ecological dimensions (Cote & Nightingale, 2011; Leach, 2008)).

The dwelt human-environment perspective creates space for conceptualising the role of temporality in management – an important need that arose in the previous chapter. I introduce the idea of landscape legacy to address these temporal considerations. The objective of landscape legacy is to identify how human-environment engagement embodied in the material landscape shapes the management practice of current landholders. The evident relationship of landscape legacy to ideas of non-human agency means I also discuss my approach to this concept here. I use the notion of 'multiplicity' (Law and Mol, 2008) to elicit non-human agency, which also serves to clarify the relationship between human and non-human agency in my thesis.

Landscape legacy emphasises that the histories of rural-amenity landscapes are contested and multiple, and those who live there will selectively interpret and enact these histories through management. In other words, the unique dwelling experiences of rural-amenity landholders will serve to mediate encounters with the past. Through exploring how the diverse historical trajectories of rural regions shape landholder management practice, legacy also addresses how past landscapes can shape future ones (Goosden & Head, 1994). Legacy also brings attention to how such histories relate to dwelling in shaping ideas like 'belonging' and 'indigeneity' of flora and fauna from the perspective of landholders.

Having addressed the role of temporality, I turn to defining the relevant spatial dimensions for emergence and continuity of management practice. Of importance here is the relevance of space and the boundaries of spatial scales for locating the focus of research. The pre-eminence of private property as a spatial delineation in rural landscapes, means 'property' is used to situate the interrogation of dwelt human-environment interactions (Yung & Belsky, 2007).

However, to avoid isolating people from wider landscapes and social interaction, the property-scale focus must be nested within wider spatial relationships. At present, the property scale is frequently adopted as the default scale of analysis for private land conservation research without considering the role of broader social-ecological inputs. Evidence of management actions emerging through interaction with wider landscapes and non-local actors (Riley, 2006), combined with documented heterogeneity in management regimes within a single property (Head & Muir, 2006) demand that property not be segregated as the only space of relevance.

To incorporate analysis of how social interaction might accompany a dwelling perspective in the production of management knowledge, I rely on social learning theory and communities of practice (Lave & Wenger, 1991). As noted in the previous chapter, research in rural-amenity regions has given rise to conflicting observations about the extent to which social interactions are producing shared learning around conservation issues (Larsen et al., 2007; Yung & Belsky, 2007). However, the potential for neighbourhood knowledge exchange (Fischer & Bliss, 2008; Riley, 2006) and non-local forms of shared learning warrants attention to how learning for management occurs through relationships *between* social actors. To achieve a focus on learning through social interaction I apply the idea of communities of practice. I also outline how a priori knowledge possessed by landholders and knowledge gained through landscape interaction can integrate with a social learning perspective.

Finally, I seek to provide a functional definition of landholder management 'practice' that extends beyond a description of the performance of management action, to accommodate insights from the dwelt human-environment perspective. The last section of the chapter provides an overview of my theoretical framework, and ties it back to the implications for private land conservation policy in rural-amenity landscapes.

Property in private land conservation

The term 'property' carries multiple and contested meanings in the context of private land conservation research. To provide an orientation for this chapter and for later discussion, I will outline how property can be thought of as: 1) legal ownership and 'rights'; 2) territorial place; and 3) a unit of spatial scale (as already identified).

The extent to which ownership of private property gives owners an unrestrained right to 'do whatever s/he wants' with their land (Mansfield, 2008, p7), is a highly topical issue for private land conservation. As noted in Chapter 2, rural-amenity migrants can perceive private property rights as allocating a high degree of land use autonomy. However, this 'absolute' conception of property fails to reflect the wider social responsibilities that accompany private ownership as reflected in legal definitions (Mansfield, 2008). Legislated requirements to remove invasive weed species or civic requirements to maintain a tidy front yard reflect the public responsibilities that can be attached to privately owned spaces (Blomley, 2004).

Much has been made of this tension between ownership conceptions in private land conservation research, especially regarding landholder resistance to regulation designed to protect 'public good' dimensions of property, such as biodiversity (Reeve, 2001). However, the view of property as either public or private fails to capture how land management practices can be pursued for personal *and* collective ends. The increasing popularity in Australia of conservation covenants for protecting biodiversity in perpetuity highlights this deficiency (Harrington et al., 2006). As Blomley (2005) shows in the case of gardening, residents can simultaneously conceive of their front yards as spaces for personal enjoyment and areas that contribute to neighbourhood aesthetics. How differing and potentially more subtle perspectives of ownership and property rights might influence the management practice of landholders is clearly relevant to my research, especially for interrogating the objectives of adopting conservation schemes for protecting biodiversity values (discussed in Chapter 7).

Property as a territorial place is an important conceptualisation that has implications for the emergence of management practice. The idea of property as 'home' or a haven away from outsiders highlights how it can denote a sense of place for landowners (Blomley, 2004). Indeed, rural-migration has been partly interpreted as individuals seeking to immerse themselves in a 'private nature' through property-based interactions away from the social world (Cadieux, 2011, p348). However, to position the property parcel as a bounded place of human-nature interactions where management practice emerges, is to ignore the influence of wider social relations (Massey, 2005). I want to avoid an essentialist interpretation of property as territorial place, whilst still recognising that the property as a living space represents a strong point of attachment for those who occupy it (Tomaney, 2010). This involved thinking about property as a material space that provides for 'intimate ongoing togetherness' (Cloke & Jones, 2001, p651) of people and material nature, without limiting the influences on management practice to that space. The need to delineate an unbounded setting for the emergence of management practice has implications for my intention to bring material nature back into an understanding of agency. How this place-based setting accords with a model of agency that locates human beings as embedded in social and material relations is outlined in the following section.

While the property as a spatial scale of analysis is introduced above, it is worth noting that a less essentialist view of property as bounded place is aided by recognising it as a permeable spatial unit. This means acknowledging that the boundaries between properties are only influential to the extent that they shape the experience of those who dwell there (Ingold, 1993). The implications of a permeable and nested view of property are described in the later section on spatial scale.

Traditional views of agency in pro-conservation behaviour research

Framing the approach to researching landholder management practice I have introduced above requires engagement with ontological questions of agency

(Bakker & Bridge, 2006). Agency has traditionally been defined as a human capacity for autonomous action, expressed through the ability to make choices, communicate through language and develop skills; it is one's capacity to act consciously in the world (Malafouris, 2008). This model of the decision-maker has dominated pro-conservation behaviour research (Kasper, 2009), driving the use of behavioural models to determine which elements of an individual's make-up are most important in explaining or predicting behaviour (see Ajzen, 1991, for example). While attempts have been made to account for external influences in this process, it assumes behaviour can be explained by separating a person from their social and biophysical context (Kasper, 2009; Steg & Vlek, 2009). The ease of observing individuals outside of their contextual worlds partly explains this trend (Reid Sutton & Hunter, 2010). In private land conservation research specifically, landholders have often been depicted as either economically rational decision-makers or actors solely driven by the attitudes and values that make up their subjective belief-system (Lubell, 2003).

This view of human agency has emerged from a wider debate concerning the power assigned to autonomous agents, as opposed to social institutions and the material world. Following the post-structuralist critique in sociology and related fields of social forces as mediators of human experience, overcoming the agency/structure divide in understanding human action has been a considerable challenge in all strands of sociological thought (Giddens, 1984). Bourdieu's Practice Theory (Bourdieu, 1977) and the Structuration Theory of Giddens (1984) are examples of attempts to overcome the dichotomy of agency and social structure, by making room for both without prioritising either. There have been calls to engage more widely with this debate in the pro-conservation behaviour field to open the prevailing model of agency to wider relations (Cote & Nightingale, 2011; Kasper, 2009).

The absence of an engagement with material nature as a structuring dimension in management practice is of particular relevance to my research. As I began to outline in Chapter 2, the result of this absence is an unfulfilled potential for management actions to emerge through 'tactile involvement of people with the

land' (Tilley 2006, p27). Archaeological research has also shown how the 'material world is not a passive medium' (Gosden & Head, 1994, p114) but an active contributor to human action. This emphasises the role of material nature as a catalyst or constraint on social processes, and the understandings of nature that come with being immersed in it (Burton, 2004; Tilley, 2004; Wilson, 1997).

Recent efforts by human geographers to reintegrate the material world into a model of human agency further support the need to recognise material nature in understandings of landholder conservation practice. The renewal of interest in the role of material culture in understanding social life has been referred to as the 'rematerialisation' of geography (Bakker & Bridge, 2006; Jackson, 2002). This move to rematerialise geography represents a departure from previous theorising of the environment as a social and cultural construction, which accompanied the cultural turn (Valentine, 2001). The cultural turn of the late 1980s and 1990s involved a departure from traditional geography, in its prioritising of the material objects and depictions of homogenous social values and norms (Valentine, 2001). The post-structuralist ideas above played a key role in this shift. However, ideas of nature as a social construction left little room for nature outside of human representation (Whatmore, 2002). As such, the rematerialisation of geography has resulted in calls to understand how 'the "material" and "social" intertwine and interact' (Thrift, 1996, p24) across a range of geographies.

These efforts to reconnect with the 'material' have been influenced by geography's engagement with social and cultural theory (see Malafouris, 2008). Prominent among these has been Actor-Network Theory (ANT) (Latour, 1993). ANT serves to de-couple agency, so it belongs to neither people nor things. Agency is placed in the network of interactions between entities, rather than being anchored to a specific entity (Bakker & Bridge, 2006; Malafouris, 2008). However, ANT theorists have arguably paid limited attention to material nature in the study of relational agency, with greater priority given to human-technology networks (Cloke & Jones, 2001). Given one of the key objectives here is to give more credence to material landscapes in shaping conservation practice,

it is more pertinent to consider the landscape as possessing a type of agency that is 'without thought or intentionality' (Tilley, 2004, p79). The growth, spread and seeding of trees through time is an example of how nature can possess an agency without intentionality, which in turn impacts on the social life of individuals who occupy these spaces (Jones & Cloke, 2008). I move now to consider how human agency connects to the agency of landscapes in the context of management practice.

A 'human-in-ecosystem' approach to agency

In pursuing my primary research question I seek to demonstrate that human agency 'cannot be separated from the environments in which that agency emerges' (Nash, 2005, p69). This interpretation rejects external, contextual and materials elements of the world as detached from the 'rational centre' of the human mind (Nash, 2005, p68; Clark 2008). In this way, the 'material agency' (Ingold, 2008, p212) of the landscape or its constituent parts is reflected in the 'embodied dimensions' (Kirchhoff 2010, p2) of human interaction. As Ingold (2000, p42) suggests, the 'human condition' should be positioned as being 'immersed from the start, like other creatures, in an active, practical and perceptual engagement with constituents of the dwelt-in world.'

This embodied view of agency draws heavily on the work of Heidegger (1971), who sought to ground human existence in the earthly surroundings that sustain life. This grounding, or *dwelling*, exposes human beings to seasonal variability and the cycles of life. The temporality of these natural cycles brought Heidegger to consider the role of time in the way people accommodate themselves in the world (Cerbone, 2008). Heidegger's objective here was to reject the Cartesian split of mind from body, by suggesting that the act of *being* was a 'worldly activity', and to ignore this world results in a failure to understand human consciousness (Cerbone, 2008, p31). In his efforts to embed humans in the world, Heidegger prioritised intimate, place-bounded interactions as the 'authentic' settings in which identity emerges (Harvey, 1996). This focus on locally bounded relations has rightly been criticised for dismissing social

interactions beyond the local as contributing to the 'lived' experience (Massey, 2005, p185; Harvey, 1996) – a point I will pick up in the following section.

A recent revival of interest in dwelling has sought to focus on how understandings of landscape and environment can be constituted through active involvement with these spaces (Cloke & Jones, 2001; Macnaghten & Urry, 1998). In other words, the bodily practice of dwelling *in* the material landscape produces unique and intimate knowledge of landscape function. Ingold (1993) has also shown how dwelling can be used to position the landscape itself as an 'array of features' that have come into being through a 'pattern of activities' conducted by human beings, interwoven with other living and non-living entities (Ingold 2000, p198). As a result, dwelling enacts a view of landscapes as both 'creating' and 'created' by human action (Gosden & Head, 1993, p114).

Dwelling emphasising 'cultural' landscapes

The rejuvenation of dwelling by Ingold (1993), Cloke and Jones (2001) and others helps to characterise the approach I wish to take in defining 'landscape' as more than the natural features of the physical environment. This depiction draws on the cultural landscape tradition within human geography (most prominently espoused by Olwig (2002), for example) in rejecting the idea of nature as 'apart' from the daily practices of people, and thus partly constructed by those practices (Goosden & Head, 1994).

The cultural landscape tradition has similarly shown that landscapes embody a history of human-nature interaction through time (Macnaghten & Urry, 1998). Exposing the human dimension of landscapes is important in my research, as landscapes are often cast as 'natural' in ecosystem management contexts. The management context of private rural land brings the cultural dimension of landscapes into sharper focus, given the long history of human modification. Evidence of the creating and created dimensions of these ecologies can be seen in the mosaic of remnant and hybrid ecologies, ecological restoration and ornamental natures that persist there. I draw on and extend this view of landscapes later in the chapter through the idea of landscape legacies.

Dwelling and land management research

Applications of dwelling in a land management context highlight the relevance of this concept for exploring landholder conservation practice. As noted in the previous chapter, Head and Muir (2006) demonstrated how challenges to ideas of species purity or 'naturalness' could emerge through the practice of gardening. A research participant in their project observed native birds nesting in thickets of an invasive plant, forcing them to re-consider whether this weed had a place, and the appropriateness of efforts to completely remove it. As Head and Muir (2006, p518) emphasised, 'the actual labour of this type of species purification is a long and difficult process that can itself change people's understanding of how appropriate it is.' Immersion in everyday environments through time can lead to unique practices and perceptions of local environments.

While dwelling makes a useful contribution to a conception of agency for management practice, it requires adaptation to address the restrictive overemphasis on the role of locally grounded experience (Massey, 2005). Most pertinent here is a need to capture social and biophysical interactions that extend beyond the territory of the local landscape, whilst still retaining the importance of immersion in everyday environments. Therefore, I propose thinking about dwelling as providing a 'place-based' setting for the production of management practice on private land, rather than a 'place-bounded' setting that overlooks the influence of wider interactions (Massey, 2005, p 184). This basic tenet is a key element of my conceptual framing. To achieve this placed-based setting I turn to the emphasis on scalar interactions found in SES thinking.

Incorporating lessons from SES thinking

Application of SES thinking to my research provides some critical insights. Indeed, SES was born out of a belief that social systems and ecological systems were being studied in isolation by different types of scholars, ignoring the fundamental interdependence between social and ecological realms (Berkes & Folke, 1998). Recognising and learning from these interdependencies was seen

as crucial if global environmental declines were going to be properly addressed. These early origins of SES thinking sought to draw attention to the social mechanisms that sit behind the process of ecosystem management, ultimately viewing the division of social and ecological systems as arbitrary in our understanding of management (Berkes & Folke, 1998). As such, conceptualisations of management practice as a dynamic and complex process are well advanced in SES approaches. This accords with my research focus, as I am primarily interested in the ‘patterns of interactions’ (Berkes & Folke, 1998, p15) between and amongst people and nature.

Integrating elements of SES thinking provides four major benefits for my project. The first, as demonstrated above, was that SES thinking offers a useful heuristic for the embedded social dimensions of ecosystem management. Secondly, it calls attention to cross-scale complexity and inter-related social-ecological processes in ecosystem management (Berkes & Folke, 1998; Leach, 2008). This means the scalar sensitivity being sought to avoid a ‘place-bounded’ framework has emerged in the specific context of ecological management research. A scalar focus also draws out the relationship between the ecologies of private property and their relationship to landscape ecologies. The importance of spatial and temporal scalar considerations raised by SES (spatial and temporal) means they must be dealt with in discrete sections later in this chapter. Third, SES thinking and subsequent scholarship has given rise to some specific concepts that are useful for integrating with a dwelling perspective in the analysis of management practice. The contribution of these ideas is discussed in the section on landscape legacy further below.

SES thinking as a link to the policy realm

The fourth benefit of SES is its ability to translate the challenges and complexities of ecosystem management into the policy arena. Perhaps the most critical contribution of SES scholarship is its highlighting of the danger of decoupling ecological management objectives from their social context, and advancing policy under the assumption that conservation occurs in the absence of people (see Li & Li, 2012, for example). In highlighting how social mechanisms

underpin environmental management, SES emphasises the need for the human dimension to be reflected in ecosystem governance arrangements (Cote & Nightingale, 2011; Widgren, 2011). Exposing the complex interactions underpinning ecological management has led to calls for greater flexibility and adaptability of policy settings and for wider public and stakeholder participation in policy development (Duit, Galaz, & Eckerberg, 2010). Therefore, in exploring the policy dimensions of this research, and in formulating later policy recommendations, recognition of coupling of social and ecological dimensions must be prominent.

The grounded language of SES is also beneficial for opening up dialogue between researchers and policy makers (Cote & Nightingale, 2011, p10). While this is expanded upon in the final section of the chapter, it is worth noting the importance of producing applicable research outcomes for the institutions that operate in the private land conservation space.

Overcoming SES limitations

Despite being a useful heuristic, SES has limitations as a 'stand-alone formal theoretical framework' (Cote & Nightingale, 2011, p4). While SES provides a useful framework for interrogating social and ecological linkages, in many cases it has resulted in simplified portrayals of social systems in which social dimensions are seen as subservient to ecological phenomena (Leach, 2008). In some cases, exploring the social dimensions of SES has translated to a focus on formal institutional relationships, at the expense of informal social relations (Leach, 2008). This can have a notable impact on understanding social-ecological linkages when informal management relationships and practices appear common in private land conservation (Riley, 2006). Moreover, while the original intent of SES may have been to break down arbitrary divides between the social and the ecological, I would argue that subsequent research adopting this heuristic has often reinforced this divide. Overcoming these challenges requires a concerted effort to situate SES in the socio-cultural context in which decisions about ecosystem management are made (Cote & Nightingale, 2011). Here, SES has been situated in such a context by connecting it to a dwelling perspective.

A dwelt human-environment perspective for management

Incorporating ideas from SES into a dwelling perspective means the processes of management practice are located in the everyday environments in which people are situated, without being constrained by those environments. Critically, this also allows space for non-local relations – both social and material – to shape management practice. Finally, connecting these heuristics gives a policy orientation to human engagement with nature through management. For the purposes of this thesis I term this incorporated concept the ‘dwelt human-environment perspective’.

The use of the term ‘human-environment’ instead of ‘social-ecological’ to capture this relationship serves a specific purpose. The intention is to capture my conception of human agency in reflecting everyday encounters with nature. It is the ‘attentive involvement in the landscape’ (Ingold, 2000, p207) of social actors that sits at the heart of this framing of management practice. Thus, it is important to reflect this fine-grained scale of interaction, as opposed to the broad-scale systems terminology of ‘social-ecological’.

The dwelt human-environment perspective is an original attempt to unite these approaches. Dwelling has been paired with SES in the past to position local knowledge in an ecosystem management context (see Davidson-Hunt & Berkes 2003, p68). However, in contrast to the above example, I view the perspective outlined here as a humanistic heuristic (dwelling) complemented by an ecological heuristic (SES). In the following section I outline the idea of landscape legacy as a way of operationalising the dwelt human-environment perspective for exploring temporal aspects of management practice. Landscape legacy can be thought of as a second order concept that extends from the higher-order framing of the dwelt human-environment perspective. I introduce this concept here with the intention of deploying and building on it through the empirical work in later chapters.

Non-human agency and landscape legacy

Not all of the actors in land management practice are human. As Hinchliffe (2010, p308) notes in the context of community gardens, the 'more a garden takes shape, the more entangled it becomes with gardeners'. These gardeners are not just people, but plants, insects, and soil. While the main task in defining agency has been locating human agency in social and biophysical context, it is important to position the physical landscape as *more than* a contextual setting (Whatmore, 2002). In other words, the landscape must be recognised as an actor in its own right (Law and Mol, 2008). This recognition is important for addressing the aforementioned need to avoid treating the physical environment as a blank canvas in which human activities are conducted (Tilley, 2006). To address this need I turn to the notion of multiplicity.

'Multiplicity' is a concept borne out of non-representational theory, which addresses the *performance* of practice through interactions of human and non-human others (Law & Mol, 2008; Whatmore, 2002). As a post-structuralist theory drawing on the ideas of Heidegger, and in its interest in the agency of material environments, it shares common strands with my framing of human agency. As I will elaborate on below, the example from Hinchliffe (2010) cited above of the 'multiples' that make up a community garden captures how I intend to position non-human agency in this thesis, and its relationship to human agency.

Just as Hinchliffe (2010) classifies gardens as being made by multiple agents, I seek to position management practice in this light. In other words, management is not just practiced by contextualised human agents, but also by non-human agents. Thus, the ecologies of private land are produced (and reproduced) through human-environment interactions. Moreover, as Hinchliffe (2009) identifies, the multiple relations and interactions that make up gardens are not confined to the present, they have complex histories and geographies. This is important for recognising how the history of land use and ecological change in a rural-amenity landscape might converge with the management aspirations of amenity in-migrants to make new ecologies.

As I will elaborate on in the landscape legacy section below, the key landscape agent of interest in this thesis is vegetation. This includes the native and non-native flora that landholders plant, remove, protect and observe on their properties over time. As noted earlier, the growth, spread and even death of plants makes them a type of active manager of the landscape (Jones and Cloke, 2008). While they may be agents acting without intentionality, the change or continuity of their material form shapes management outcomes, as well as shaping the people who seek to act on them. Thus, the key benefit of multiplicity for my thesis is highlighting how the multiple agents that are producing ecologies do not act alone (Law and Mol, 2008). It is this attention to the interrelationships between human and non-human actors that holds promise for uncovering new insights into private land conservation.

Landscape legacy: introduction and terminology

In developing a conceptual framing for exploring management practice in rural-amenity regions, the temporality and materiality of landscapes have become prominent themes. As outlined already in this chapter, and in Chapter 2, these aspects have not received sufficient recognition in framing the management practices of current landholders. My dwelt human-environment perspective seeks to remedy this in part, by embedding social actors in material landscapes. In situating land management practice in the landscape, the inherent temporality of these landscapes becomes a more prominent consideration in understanding these practices. In this section I introduce the idea of landscape legacy to bring greater clarity to the implications of temporal landscape dimension for land management practice.

Legacy is a useful term for describing the engagement between landholders and the histories embodied in the landscape. I adopt the term 'legacy' for describing this relationship as it conveys the idea of inheritance; a handing down from the past. By incorporating a view of landscapes as cultural, landscape legacy encompasses the history of human-environment interaction embodied in the material landscape. Material landscape legacies persist in forms like remnant

ecologies, fence lines and paddocks, connecting current landholders to the practices of past land users. The mosaic of ecologies and farming infrastructure of rural-amenity landscapes means in-migrants encounter rich and diverse material legacies.

Alongside the material dimension, landscape legacies can also exist in social forms. Social-ecological memory is a useful SES concept for highlighting that individuals and communities will also possess memories of landscapes past, which can influence contemporary management practice (Barthel, Folke, & Colding, 2010). This is true of management knowledge passed down through family history (Fitzhardinge, 2008), but is also relevant for landholders without a familial connection to a property or region. Interactions between long-time rural residents and recent in-migrants may provide an avenue for past human-nature relationships to be translated into current practice. Memory and legacy are closely connected in the way the histories of landscapes can translate to their present management.

Further work on social memory also shows how memories from beyond a local landscape – like those found in historical records – can play a role in ecosystem management (Nazarea, 2006). For example, external records are often used to identify appropriate species for ecological restoration projects. This may be especially true of regions where there are few remnants of pre-settlement ecosystems on which to base restoration efforts. Similarly, landscape legacies can be carried by in-migrants from ‘beyond’ their new rural environment. This is evident from my earlier mention of people importing preferences for ornamental natures when in-migrating (Cadieux, 2011). These non-local legacy contributions to management are important in avoiding a ‘place-bounded’ framing of management practice.

Memories of landscapes as represented in artwork and archival texts can be used to fill gaps in memory that may no longer exist locally. As an example, the diaries of John Batman (founder of the settlement of Melbourne) have been used to supplement gaps in local ecological memory to determine an appropriate

distribution of red gum eucalypts in grassy forest regeneration projects (Gibson-Roy, personal communication, 17 November 2011). This example captures the potential for property-based engagement with nature to merge with relations from beyond the local in learning about landscape legacies.

Material landscape legacies as 'interpreted'

The key point I want to communicate with the concept of landscape legacy is the contested nature of landscape, and the selective translation of legacy into contemporary land management practice. In other words, I posit that the histories and geographies of rural-amenity landscapes structure land management practice in ways that are not predetermined. Olwig's description of a landscape as a 'historical document containing evidence of a long process of interaction between society and its material environs' (Olwig, 2002, p226) is useful for clarifying this notion. The space of interest for legacy is conceptualising *how* rural-amenity migrants read the 'historical document' that is the landscape. In saying that legacies are not pre-given, I am suggesting this document is a contested one, which is read through the selective lens of dwelt experience. As such, space is also being made for nature's agency in generating and facilitating management practice. Thus, there is room for multiple interpretations in the translation of legacies into contemporary management practice.

Legacy, restoration and conservation

Landscape legacy is a particularly important consideration given many land management activities are inherently temporal pursuits. As noted already, explorations of temporal influences on biodiversity restoration or preservation efforts of private landholders are rare (Fish, Seymour, & Watkins, 2003; Riley, 2006). Nevertheless, both restoration and conservation revolve around 'bringing back' or 'fixing' ecologies in time, respectively (Head, 2011; Hinchliffe, 2008; Trigger et al., 2010). In attempting to re-make functional habitat for the future, we frequently call on the past to determine what species of flora to plant, in what quantities and where.

By recognising the role of landholders as a mediating force in conservation, we open the way for exploring how dwelling might challenge and re-shape ideas of what species belong in the landscape. This exploration is extremely relevant to landscape and ecological restoration projects in Australia and other nations of recent European settlement, where ideas of wilderness and indigeneity remain prominent drivers of restoration objectives (Saltzman et al., 2011; Trigger, Mulcock, Gaynor, & Toussaint, 2008). Here I am suggesting that the lived experience of landscape (Trigger et al., 2010) has the potential to mediate how people engage with legacies. In other words, if dwelling provides 'unique knowledge of the lived space' (Clope & Jones, 2001), landscape legacy serves as an avenue for exploring how dwelling mediates restoration and conservation pursuits.

Future legacy

Legacy, though very much a concept grounded in the past, has important implications for understanding the future of landscapes. When we consider the idea of 'leaving a legacy' in anthropocentric terms, it centres on projecting ones influence beyond the duration of a given role, or one's life. Through the interpretation of landscape legacies, contemporary landholders will project new legacies into the future. This recognises that 'past patterns of action [structure] future ones' (Goosden & Head, 1994, p114). Indeed, the potential for landholders to be making a rural-amenity transition primarily to pursue conservation (Argent et al., 2010), suggests leaving a new ecological legacy is a conscious reflection for some people. The popularity of conservation covenants in rural-amenity landscapes – which are grounded in the idea of creating ecological legacies – reinforces the need for attention to the future (Harrington et al., 2006).

Summary

In summary, landscape legacy shows that landholders' engagements with the histories embodied in material environments will be mediated by their unique dwelling experiences. Thus, active involvement with the landscape through time will influence the interpretation of these histories and how they translate into management practice.

In framing the contribution of temporality to an interrogation of land management practice, the concept of landscape legacy serves to bring both past and present into sharper focus. Figure 3 summarises how legacy influences management beyond the present.

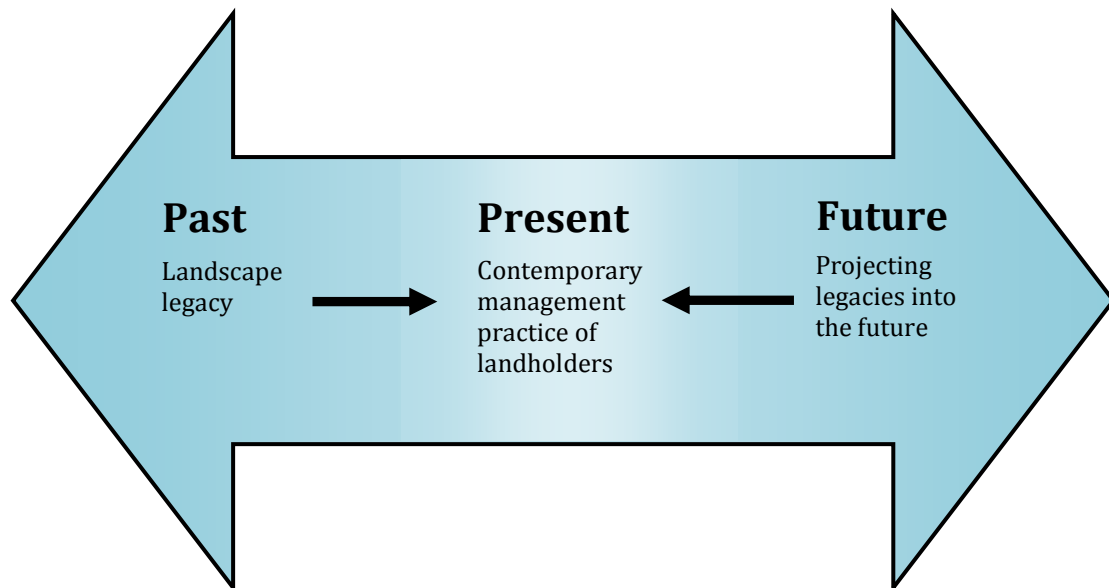


Figure 3. The histories of landscapes and projections of future legacy are inseparable from contemporary management practice.

Having clarified the role of temporal dimensions, my next task in this chapter is to define the role of spatial scale in contributing to a framework for analysis of management practice.

Spatial scale: defining the space of analysis

Given the potential for social and material relations from beyond the property to influence landholder management action, it was appropriate to develop a property-based focus of analysis that positions the property boundary as permeable to external influences (see Figure 3.1). The property is a type of ‘spatiality of social life’ as its importance as a spatial unit is relevant in the specific context of land management practice (Zimmerer and Bassett 2003, p288), rather than being a predetermined scale of importance. The objective here is to position a space for analysis that best captures place-based but not

place-bounded relations for shaping private land conservation practice. Nesting the property as a scale within wider spatial units also shows how ecosystems do not recognise property boundaries in their function, thus emphasising the potential for their spread or continuity across the landscape to influence relations between the owners of property.

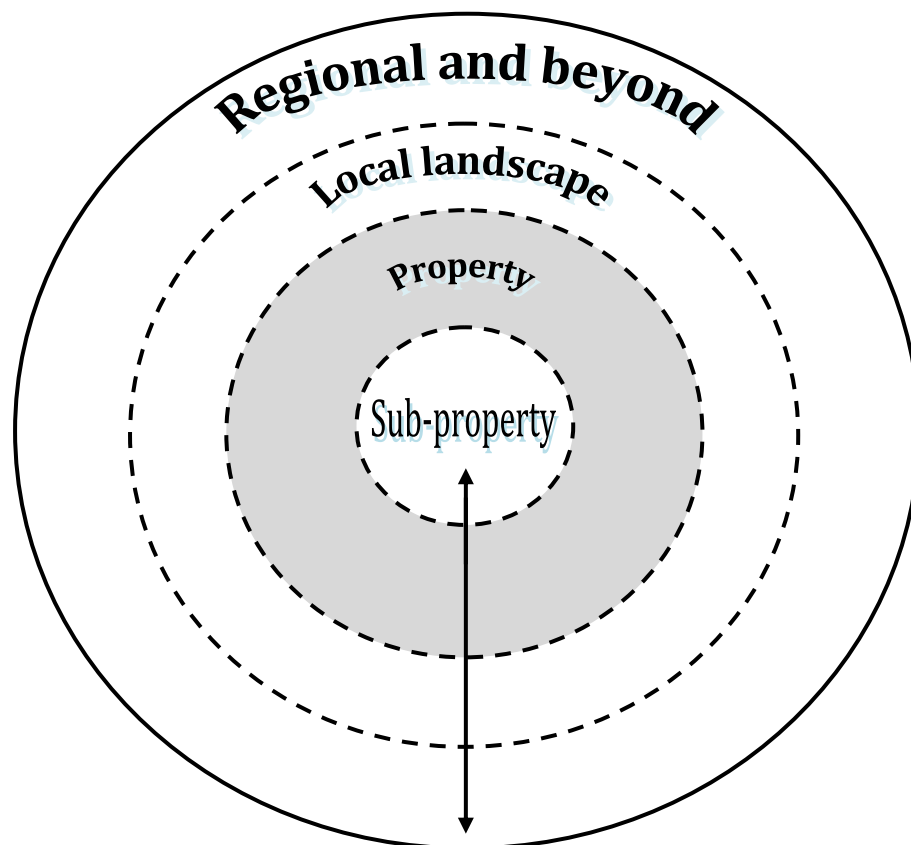


Figure 3.1. The framing of spatial scale for exploring the management practices of landholders. The property boundary is positioned as the scale of interest (shaded grey), but lower and higher order scales are reflected in how landholder management practice is shaped.

The need to address issues of spatial scale emanated from the recognition that scalar assumptions have significant implications for research on social and ecological interactions (Sayre, 2005). As noted above, focus on the property scale as the relevant space for research must not come at the expense of other relevant scales and their interactions. For example, the 'local' has often been cited in the NRM literature as a common scale of interest for conservation issues (see Brunckhorst, Coop, & Reeve, 2006). This is evident in the proliferation of community NRM groups like Landcare in Australia (Prager & Vanclay, 2010).

Moreover, a sense of regional identity characterised by biophysical features such as river valleys or coastlines can be a point of engagement for landholders pursuing conservation action, especially if those features are facing decline or an external threat like development.

Furthermore, there is potential for landholders to possess different attitudes towards nature, and pursue different management regimes, within the bounds of a single property (Holmes, 2006; Riley, 2006). The allocation of different spaces for management within a backyard garden context (Head & Muir, 2006) indicates the importance of not conceptualising the property as a homogenous space of unified management.

The prominence of property as a space of interest for landholders suggests a need to be mindful of how these nested spatial units interact with one another across the local scale. Indeed, the pursuit of new management regimes by amenity in-migrants has shown the potential for property-based actions to impact on local social and ecological relations (Gosnell, 2011; Klepeis et al., 2009; Yung & Belsky, 2007). The impact of not controlling invasive weeds on one property can result in them spreading to an adjoining property, impacting both the ecology and social relations between neighbours (Yung & Belsky, 2007).

As such, it is useful to think about the local landscape as both a topographic scale where property is nested and a space of social organisation where the occupants of property interact with one another (Reid, Hunter & Sutton, 2009). The arrows in Figure 3.2 represent the exchange of social and material relations between properties described above.



Figure 3.2. Adapted from (Map data ©Google 2012 via Cnes/Spot Image ©2012). The local landscape is an important space for conceptualising how social actors interact across property boundaries, and how these interactions can occur in conjunction with ecological interactions.

While I have identified the potential for social interactions to influence private land conservation behaviour, a need exists for a more thorough reflection on these relationships as opportunities for *learning*; this is the focus of the next section.

Social learning: communities of practice and a priori knowledge

To date in this chapter, efforts to de-centre human agency by situating it in the landscape have translated into attentiveness on material nature for conceptualising how management processes emerge. While the idea of landscape legacy engages with social interaction in conceptualising management, a more comprehensive engagement with learning through social interaction is necessary, to address how changing social dynamics in rural-amenity landscapes are shaping management practice. (The need to bring attention to these changing dynamics was established in Chapter 2 – I reflect further on this work below). The following discussion highlights how social learning theory and the idea of communities of practice (Lave and Wenger 1991; Wenger 1998) can facilitate this investigation.

While descriptions of social learning can be vague and variable both inside and

outside of the NRM context (Reed et al., 2010), Keen et al's (2005, p4) definition is well suited to this study; '[social learning encompasses] the collective action and reflection that takes place amongst both individuals and groups when they work to improve the management of the interrelationships between social and ecological systems'. The reference to SES in this definition also serves to highlight the application of social learning theory to studies incorporating a SES perspective (Rodela, 2011).

The above definition of social learning is viewed as taking place within communities of common interest, termed 'communities of practice'. This idea, borrowing from organisational learning theory (Wenger, 1998), posits that learning takes place in a participatory framework with other social actors (Lave & Wenger, 1991). Communities of practice in rural landscapes have traditionally been identifiable in productive farming communities, in which learning and knowledge exchange exist between landholders who share a common land use (Williams, 2004). However, evidence of communities of practice existing around conservation practice in rural-amenity regions has been contrasting. Chapter 2 showed how some research has indicated a lack of social cohesion and social capital is creating substantial barriers to learning interactions in rural-amenity landscapes (Klepeis et al., 2009). Differing ownership motivations and heterogeneous land uses amongst amenity in-migrants may be inhibiting the establishment of communities of practice (Yung & Belsky, 2007). However, research in other rural-amenity contexts has demonstrated the potential for communities of practice to emerge as people come together around a newly shared interest in the environment (Larsen et al., 2007).

Given the contrasting findings around knowledge exchange noted above, conceptualising how social interactions might produce learning for management must be part of the framing of practice. How amenity migrants learn from other landholders, how interactions present opportunities to acquire knowledge and how that knowledge is applied are all questions to be explored through a social learning framework. Moreover, social learning also provides an avenue for exploring whether changing social dynamics through amenity in-migration

(Argent et al., 2010; Holmes, 2010) might impact on a property owner's ability to access existing communities of practice.

Notwithstanding the applicability of communities of practice, efforts to forge this concept (particularly on the part of its original proponents, Lave and Wenger 1991), have drawn attention away from other structures and contexts for learning (Tennant, 1997). These other 'facilitative mechanisms' (Reed et al., 2010, p7) for learning might include the dissemination of NRM extension material to individuals in the form of leaflets about conservation issues, for example. Attention to these types of learning structures in shaping management must not be ignored.

In outlining a model for social learning for management, it is also important to recognise the a priori knowledge and ideas about conservation that landholders bring with them to rural-amenity landscapes. In Chapter 2 I noted how differing ideas and perceptions of rural landscapes and conservation have produced conflict between land users in rural-amenity regions (Parbary et al., 2008). In understanding how landholders might learn through social interaction, the interplay of these interactions with existing knowledge must be considered. For example, how does existing knowledge influence how external knowledge is accessed, and how are conflicts between a priori and new knowledge navigated?

Further to the recognition of a priori knowledge, the social learning processes espoused here must be compatible with the situated learning approach of 'conducting one's life in a particular environment' (Ingold, 2000, p25) expressed through a dwelt perspective. Recognising that people learn 'with and from their environment' (Muro & Jeffrey, 2008, p328) allows room for learning through social interaction (their social environment) and the material landscape in which people dwell. This brings social-ecological context dependence to social learning and the formation of communities of practice. As (Jacobson, 1996, p25) notes, 'novice practitioners can learn in practice *and* [emphasis added] in conversations about their practice'. Thinking about rural-amenity migrants as novice practitioners of biodiversity management (as demonstrated by Pannell &

Wilkinson (2009) among others) provides space for learning from direct experience as well as from other social actors. Social learning and learning-by-doing are complementary in understanding how management practice is shaped.

A key benefit of social learning here is the recognition that communities of practice that contribute to management practice do not have to be local (Pelling and High 2005). In the case of biodiversity conservation, communities of practice can exist around a single species or protected area, facilitating social relationships that contribute to learning from well beyond the local neighbourhood. This extends the realm of social relations beyond landholder-landholder relations to consider a more diverse network of influencing actors.

Defining management practice

In developing a conceptual framework for interrogating the land management practices of landholders, the final task of this chapter is to offer a revised definition of management practice that encompasses this conceptual work. In the majority of private land conservation research cited to date, the term 'management practice' is used to describe the performance of management (praxis) by a landholder. However, the above framing of landholder management practice encourages a definition that reflects more than simply a tangible or instrumental action in isolation.

The terminology of 'practice' has remained undefined in this chapter to date. I have deliberately left my discussion of its definition until this point in the chapter, so as to first allow the above-mentioned dwelling concept and models of learning to be placed alongside management action (the performance of management). Having outlined these concepts, the idea of management practice as simply the task of on-ground action (praxis) is no longer sufficient. Practice Theory, as espoused by Bourdieu (1977) and Giddens (1984), helps to highlight the practices that sit behind the performance of action. Reckwitz (2002) defines 'practice' in Practice Theory as:

A routinised type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge'. (p. 249)

While not seeking to apply a Practice Theory lens to this research specifically, as a body of work Practice Theory emphasises that there are processes and knowledges associated with the planting of a native shrub, for example, that are bound up in the tangible expression of the action. As a result, it can be considered that a given management action 'presupposes a practice' (Warde 2005, p134). This means that understanding landholder practice as more than just performance requires the inclusion of the knowledge and embedded interactions that underpin it (Figure 3.3).

In a similar vein, McNaghten and Urry (1998) have suggested a focus on 'social practices' gives due regard to the complex and changeable engagements between humans and nature. These social practices are said to consist of *discourse* (language and ideas about nature); *embodiment* (senses of and interactions with nature); *space* (differing perceptions of nature across space); *time* (changing ideas of nature through time); and *human models of activity* (human agency, trust and risk). It is these 'specific social practices, especially of people's dwellings, which produce, reproduce and transform different natures...' (McNaghten & Urry, 1998, p2). These social practices, with their emphasis on time, space and agency, confirm the value of a dwelt human-environment perspective for informing an expanded view of management practice.

The 'practice' of land management

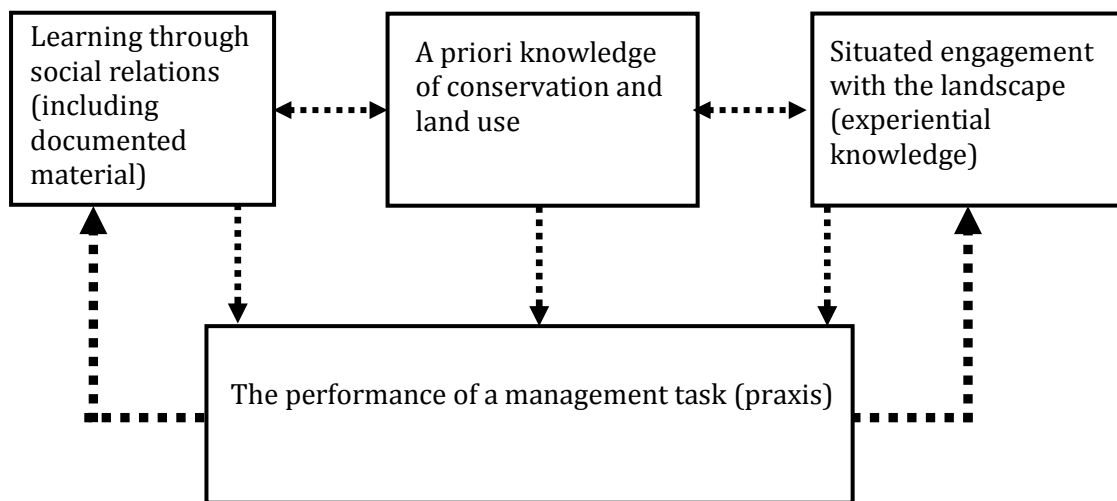


Figure 3.3. Management practice is more than the performance of a task, with social learning, a priori knowledge and material landscape engagements also presupposing the expression of a management action. Feedback between praxis and learning is also recognised here.

The definition of practice shown in Figure 3.3 avoids positioning a land management action as a disembodied act. It also helps to interrogate the social and landscape interactions through time and space that are of core interest for this project, by positioning them as a component of management practice. I use the term 'experiential knowledge' here to reflect landholders' situated nature engagement as a process for building management knowledge. Locating a priori knowledge in this schematic means the existing knowledge and perceptions of landholders are recognised as a component of practice. This view of practice immediately draws attention to the processes that presuppose management action (weed removal, tree planting). Moreover, it makes room for feedback *from* praxis in shaping management knowledge. The view of practice presented here also has implications for policy interventions, which are outlined in the following section.

Voluntary conservation schemes and the dwelt human-environment perspective

Following the presentation of the dwelt human-environment perspective, the task of this brief section is to clarify the role of voluntary conservation schemes in the conception of landholder management practice. As noted in Chapter 2, voluntary conservation schemes are proving increasingly popular in rural amenity landscapes, but few researchers have explored what participation looks like on the ground. To learn how these programs are being operationalised by landholders, I look to examine the interaction of voluntary schemes with the people, practice and ecologies of rural-amenity landscapes.

This perspective avoids positioning landholders as simply the passive recipients of policy prescriptions, recognising that they have an active role in dictating how schemes play out in the delivery of conservation outcomes (Castree, 2007a). Positioning landholders as active agents is important for framing my exploration of the 'quality' of landholder participation (see Chapter 2, page 51). Thus, while programs are designed on the basis of assumptions about the agency of landholders (Fischer & Bliss, 2008) (for example, a program may appeal to altruistic or economic motivations for participation), I am making space for considering how landholders might implement schemes in creative or 'hybrid' ways (Higgins & Lockie, 2002). This is essential, as Rissman and Sayre (2011, p12) note, because the interactions between social relations and the institutional dimensions of programs can influence conservation outcomes in 'unexpected ways'. It is the 'unexpected ways' in which landholders may enact these schemes, and how this enacting departs from the original intentions of the scheme, that are of particular interest to me.

This framing for analysing program participation is pertinent for recognising the landscape as a structuring agent in shaping how landholders might engage with conservation schemes. Rarely has the agency of the landscape been consciously reflected in analysis of how and why landholders adopt conservation schemes (Riley, 2006). Furthermore, the social relations that might impact practice or result in the formation of communities of practice could be generated by

participation in a conservation scheme. This could help to bring light to the relationship between social and institutional dimensions in determining conservation outcomes (Brunckhorst et al., 2006).

Conclusion

This chapter began by identifying a need to move beyond the positioning of private landholders as rational and autonomous decision-makers outside of their social and material worlds. I made the case for recognising that material landscapes can shape human action, and not just be shaped by human action. Heidegger's concept of dwelling presented a useful means for thinking about how landholder conservation practice is situated in the material landscapes. However, in order to avoid isolating the emergence of management practice to the site of everyday interaction (namely the property parcel), I looked to elements of SES thinking for broadening the scope of human-environment interactions.

As a result of my incorporation of SES thinking, I formulated a dwelt human-environment perspective for informing a model of agency in management practice. This perspective captures the interactions of people in material landscapes, without detracting from the relations that extend beyond local places. Once this perspective was defined I outlined its implications for opening out the temporal and spatial considerations of this research. Landscape legacy was introduced as an avenue for exploring the mediated encounters of landholders with landscape histories embodied in the material environment. The spatial implications involved eliciting a property-based research focus that viewed property as a permeable and nested spatial unit, open to wider interactions.

Having been mainly concerned with the need for a materially embedded view of management practice, I then turned to social learning and communities of practice for framing how landholders might learn through social interaction. This perspective helped to position landholders as novice practitioners who bring

ideas about conservation with them to rural-amenity landscapes, but also learn through social engagement and engagement with the physical environment.

In addressing these challenges in Chapter 3 I conceptualised the three key areas outlined in the introduction: 1) defining a model of agency, 2) clarifying temporal and spatial dimensions, and 3) providing a pathway for exploring knowledge and learning. The final task was to take this framing and apply it to the existing definition of management 'practice' in NRM. Management practice is currently a somewhat nebulous concept in environmental management, often referring only to the performance of a task; I demonstrated how the various knowledges, social processes and material interactions that sit behind praxis are inseparable from it, warranting their inclusion in a definition of management practice.

Where as in Chapter 2 I identified the need for research attention to be directed at landholder management practice in Chapter 3 I established a conceptual framing of management practice and its influences. This conceptual framing can now serve as the basis for interrogating the management practice of landholders through my empirical research. The task of the next chapter is to describe how this conceptual framework was employed to construct a workable research design.

Chapter 4

Research Design

Introduction

My primary objective in this chapter is to translate my research questions and conceptual framing (detailed in previous chapters) into a workable research design by ensuring the methods are sensitive to the context in which management practice is conducted. To achieve this objective I begin the chapter by outlining a socially constructivist epistemological position that parallels the re-working of agency in the previous chapter. Next I describe my development of a research design for interrogating landholder management practice. I adopted an ethnographically-inspired case study research design to guide the production, analysis and conduct of research. The process and outcomes of landholder management practice in the hinterland of Melbourne are the 'case' in question, with a specific focus on two study areas within this broader region. I describe my employment of a qualitative methodology to explore this case, given the need for sensitivity to complex interactions and the context that surrounds them. Furthermore, I outline how the policy analysis dimension of this research is addressed as an embedded case study within the broader case. In adopting this research design, I sought an approach that encourages reflexivity, an in-depth exploration of phenomena via multiple sources, a logical progression of research methods and a framing for the analysis of data.

After describing my research design, I discuss how considered and measured research 'quality'. This discussion includes my methods for achieving sincerity, reflexivity and rigour, and covers my positioning as a researcher in this study. I use the term 'producing data' rather than 'collecting data' throughout this chapter, to recognise that data is made and not simply collected by an omnipotent researcher.

In considering how this research can translate to contexts outside of this case, I discuss my intention to pursue analytic generalisation of results from a single case, allowing for the development of theories and concepts in following chapters. I conclude this chapter with an account of the ethical considerations and methodological limitations of the study.

Epistemological position

In this section I present a social constructivist viewpoint that proposes 'meanings are constructed by human beings as they engage with the world they are interpreting' (Crotty, 1998, p43). This position accords closely with the conceptual framework developed in the previous chapter. Just like the *dwelt* human-environment perspective on human/nature separation, my epistemological position attempts to navigate between a structured 'absolute' view of knowing and a radical constructivist 'representation' of the world (Whatmore, 2002).

This position aims to consolidate the view from Chapter 3 that we do not create meaning from nothing but from the world around us (Schwandt, 2000). This notion is at the heart of Heidegger's (1971) thinking; people act in a world that is already there – a 'being-in-the-world'. Social constructivism contends that people will make sense of nature through their experiences of it, resulting in diverse and potentially contested meanings; in other words, meaning is constructed not uncovered. Crotty (1998) utilised the relevant example of trees to demonstrate that perceptions and ideas of a thing are not static through time or across culture. Crotty's notion of varying perceptions and ideas is revealed by considering how trees might be understood differently in a logging town and an urban landscape bereft of trees. While perceptions of trees as a resource or livelihood (logging town) compared to trees as amenity (urban setting) may differ, they have equal claims to legitimacy.

In my research I do not assume a normative position on what constitutes management practice, but explore how landholders construct management

practice *through* social and material interactions. This position recognises that the relational worlds inhabited by participants serve to construct ideas of nature and how to manage it. Social constructivism is not intended to deny the actuality of ecological or material processes, but reflect a plurality in the way the world is understood by different actors (Demeritt, 2002; Leach, 2008). Indeed, by recognising the materiality of nature, social constructivism leaves room for the agency of nature to shape and alter perceptions over time as ecological processes play out in the landscape.

Thus, social constructivism connects the characterisation of agency in the previous chapter to an analogous characterisation of reality as perceived and experienced. These conceptual and epistemological positions have important implications for the design of the research project (Darlaston-Jones, 2007). The research design must ultimately serve as an instrumental deployment and extension of these ideas into a strategy for exploring the management practices of landholders.

Ethnographically-inspired case study research design

The definition of research design I adopt here is best described as ‘an underlying scheme that governs (the) unfolding’ of research that accords with the research questions and conceptual framing already elicited (Marshall, 2005, p1). I favour the term ‘unfolding’ as a way of recognising reflexivity in the design of qualitative research projects, rather than assuming a fixed linear progression from research questions to research findings (Marshall, 2005; Morse & Richards, 2002). As such, a research design must bring coherence and strategy to the selection and application of research methods to show how the project fits together as a whole, translating the prior conceptual development into a workable project (Morse & Richards, 2002).

The research design employed here is best described as an ethnographically-inspired case study. The ‘case’ is the process of landholder management practice and its material outcomes in parts of the hinterland region of Melbourne,

Australia. The focus on 'process' rather than 'people' or 'event' means my project departs slightly from a traditional understanding of a bounded case study (Stake, 1995). However, a case study research design suited this project as it encourages an in-depth exploration and analysis of phenomena in a real-life context (Yin, 2009; Stake, 1995). It is the attention to context that is important in defining a case study, as it implies a connection between the phenomena of interest and the setting in which it occurs. As I have positioned management practice as connected to the environments of everyday life, a case study research design is appropriate for directing the research methods to those environments (Riley, 2010).

The logic of utilising multiple methods and sources of data to allow a contextual occurrence to be thoroughly explored is another useful aspect of a case study approach. These methods will be described later, but the rationale for multiple sources and methods lies in the aforementioned need for an in-depth analysis. By approaching research from more than one angle, a more holistic picture of phenomena can be revealed. In this instance, the need to consider how landholders describe their own land management practice, as well as what the physical landscape reveals about those practices, necessitates exploring multiple data sources via more than one method. By building this holistic picture, case studies offer the chance to produce 'analytic' generalisations that are bound-up in the context of the research – a point expanded upon later in this chapter (Halkier, 2011).

Another appealing aspect of case study design is the capacity to include 'embedded' sub-cases within the broader single case (Yin, 2009, p 59). In instances in which identifiable sub-units in the form of programs or people are of specific interest, these units can be embedded in the single case. This approach frames the interrogation of the policy component of my research. The three programs of interest (Trust for Nature covenants, EcoTender and Land for Wildlife) were positioned as embedded cases, each representing a core policy instrument of voluntary schemes (legally-binding protection, market-based instrument, and suasion measure respectively). While a degree of comparison

between the programs is intended, my main objective is to compare the intentions of each scheme to the way they are perceived and operationalised by participants on the ground. This approach accords with the conceptual work of the previous chapter in giving active agency to voluntary scheme participants, rather than assuming participation means adoption of scheme values and objectives. Moreover, locating the programs as embedded cases reflects an explicit recognition that policy discussions in later chapters will be connected to the broader case.

Ethnographic influence

Ethnography shares some commonalities with case study research, namely the use of multiple methods, emphasis on a reflexive methodology and attention to the everyday contexts of human action (Hamersley & Atkinson, 2007). Nevertheless, my use of ethnographic techniques enabled distinct and important contributions to my research.

Ethnography brings logic to the progression of the multiple methods advocated by case study design through the idea of research phases (Morse & Richards, 2002). This idea recognises that researchers often start as distinct ‘outsiders’ in a research setting, making structured data production methods the best entry point for research. A rapport between researcher and participant can be built during this initiation phase, allowing for informal methods of data production. (I expand on how this was achieved in the research methods section further below.)

An ethnographic framing also encourages spending time with landholders on their property as part of the research process (Hamersley & Atkinson, 2007). Previous land use research on changing farming practices has demonstrated how interacting with landholders in the field shaped the stories and knowledge revealed. As Riley and Harvey (2007, p395) noted, ‘recollections were stimulated by, and grounded in, the landscape’. In this sense, ethnography reinforces the contextual focus on human action opened up by the case study approach, while introducing sensitivity to the cultural dimension of phenomena. The ‘culture’ of

interest here relates to the behaviours and practices associated with land management performed by rural-amenity landholders. In this sense, ethnography brings sensitivity to the 'emic' or insider perspective of people who are navigating management in the framing and reporting of research (Morse & Richards, 2002).

Research design rationale for study area selection

Following my explanation of how the characteristics of the study areas are suited to this project (Chapter 2, page 31), I describe the three key methodological reasons for focusing on distinct locations within a broadly defined case study of Melbourne's hinterland. 1) The embedded policy cases encouraged the selection of areas with the same voluntary conservation schemes; 2) a localised geographic space allowed in-depth analysis of social-material relations, and 3) multiple sites allowed the influence of unique local land use controversies in shaping management to be detected.

The policy focus of this thesis, translated into an embedded case study focus on three voluntary conservation schemes, necessitated the selection of study areas with comparable programs. While Trust for Nature and Land for Wildlife are Victoria wide schemes, EcoTender has been rolled out selectively across multiple regions. The Bass Coast region was central to the rollout of the Port Phillip and Westernport EcoTender trial in 2009, while East Corangamite was part of the Corangamite EcoTender Trial in 2008 (DSE, 2010a). While other regions of the state considered to be undergoing an amenity transition have been subject to market-based schemes, the study areas were ultimately chosen due to the presence of the same market-based scheme. Two study areas also yielded a larger number of potential research participants in these schemes.

Defined study areas proved useful in eliciting the role of social learning and landscape interactions on management practice. Focusing on contiguous physical environments shed light on the role of landscape legacies, as research participants shared various stories and interpretations of a common landscape

history. My understanding of the role of social learning and neighbourhood knowledge exchange also benefited from this approach. Gaining a perspective on the extent of social learning from multiple sources in local area helped to contextualise these influences. Furthermore, specific study areas meant participants would relate to the same (or similar) local institutions like local government, Friends Groups and Landcare groups. Selecting participants from locations dispersed across Melbourne's hinterland is likely to produce a more disparate picture, as I would have no means of bringing balance to individual accounts.

The themes that emerged from the data reflected a high degree of shared experience across the sites, limiting the value of positing them as distinct cases. For example, the land use and ecological histories of the Bass Coast and East Corangamite are very different (shown in Chapter 2). However, analysis of how these histories were translated into management by participants identified common themes that transcended local issues. As I discuss in the next chapter, these different legacies were deployed in common ways in pursuit of amenity values and stewardship. Moreover, similar proximity to Melbourne and a shared experience of in-migration from Melbourne's suburbs and travel into town for work and recreation meant participants from the two study areas had a shared experience of living in Melbourne's hinterland. Therefore, these two study areas contribute to the Melbourne hinterland case, rather than consisting of unique cases in their own right.

Qualitative methodology

The influence of an ethnographically-inspired case study and the exploratory nature of the research questions makes a qualitative methodology a logical choice. I intend to explore a process rather than test a hypothesis thus a qualitative approach presents as the most appropriate 'methodological fit' (Richards 2009, p xi). As Stake (1995, p37) noted, a distinction exists between 'inquiry for making explanations [quantitative research] versus inquiry for promoting understanding [qualitative research]'. An understanding of the

process and outcomes of conservation practice are of primary interest to this research. This is not to deride the contribution of quantitative methodologies to this field, rather to recognise the need to balance this contribution with qualitative methods that offer a different perspective.

As discussed in the preceding chapters, pro-conservation behaviour research has often focused on the rational individual in the search for a distinctive ‘factor’ that determines human action. Positioning the individual as de-contextualised from social, cultural and physical dimensions can be partly explained by research methodologies that do not allow these influences to emerge (Reid, Sutton & Hunter, 2010). For example, assigning behavioural outcomes to ‘intra-personal’ factors in household recycling habits ignores the role of recycling infrastructure or the characteristics of products in behaviour (Vlek & Steg, 2007, p312).

One of the constraints on quantitative, questionnaire-based research into private land conservation is the need for a priori knowledge regarding the likely responses of landholders (Bliss & Martin, 1989; Sayre, 2004). Given the paucity of knowledge about the land management practices of rural-amenity landholders (Gill et al., 2010; Holmes, 2006; Wilson, 1997), as well as the aforementioned exploratory nature of my research, a non-mechanistic methodology that is flexible and open to change is the most appropriate avenue for investigation. As Holmes (2006) noted, ‘the complex dynamics of rural occupance in (amenity) localities can only be understood by fine-grained research relating landscape dynamics to “individual domestic practices” on each landholding’. The following section identifies the types of qualitative research methods used to interrogate landholder management practice.

Research methods

Locating the research encounter at the site of human-environment interactions meant that interviews and observation on participants’ properties were the most applicable methods of data production. However, many different forms of interviews and participant observation methods can be adopted (Marshall &

Rossmann, 2006). For example, oral history, phenomenological and narrative interview techniques differ widely and carry their own assumptions about how data is produced (Rosenthal, 2004). I selected a narrative interviewing technique designed to encourage the telling of stories about the practice of private land conservation. Complementing this method was a form of participant observation that involved walking the properties of landholders with them – in the space where management is learned and performed – this is described as the ‘walkabout’ method (Strang, 2010). Other elements of ethnographic field studies were invoked to provide further background to the research encounter. Following the ethnographic logic of the research design noted above, the more formal research method (interview) came first, followed by the more informal walkabout participant observation.

I supported the ethnographically-inspired methods above with select interviews with program staff involved in the three conservation schemes, as well as analysis of policy documents for these schemes. These methods extended from the case study imperative for multiple data sources (Yin, 2009).

The narrative interview concept

The centrality of stories in everyday conversation hints at their importance in understanding the way people construct knowledge, formulate ideas and relate experiences (Mishler, 1986; Kvale & Brinkmann, 2009; Holloway & Jefferson, 2000). Most critically, however, stories allow for a focus on specific events and occasions. Telling stories about what was done, experienced or observed on specific occasions helps to reduce theorising or generalising about human-environment relations that align with broader social norms about conservation issues. This brings experiences back to the landscape in which they occurred. Thus, while personal narratives centre on the individual, ‘they provide unique insights into the connections between individual life trajectories and collective forces... beyond the individual’ (Maynes et al., 2008).

The use of a narrative approach often focuses on the life histories of individuals as a means of exploring a wider phenomenon (Kvale & Brinkman, 2009; Maynes et al., 2008). Following my development of the dwelt human-environment perspective, I wanted to reflect the stories of participants' lives in the landscape. In essence, I wanted to bring attention to narratives of the landscape and how landholders interact with it, through the avenue of story telling. These stories could be thought of as 'short stories' about events or specific happenings, as opposed to the life history narratives of oral history research (Kvale & Brinkman 2009, p153). By pursuing 'landscape narratives', personal stories are inextricably tied to the context in which they emerge.

The idea that storytelling could be useful for eliciting narratives about land management practice also extends from the assumption that practices are likely to be part of a larger picture of social and biophysical interactions. As such, stories of one event can lead on to stories of another related experience (Rosenthal, 2004). This assumption accords with my conceptual assertion that engagements with landscape *through time* produce knowledge about that environment.

In a narrative interview, the intention is to treat each question as an opportunity to elicit a story (Holloway & Jefferson, 2000). Once a question – the invitation to tell a story – is posed, the job of the interviewer is to 'remain a listener' (Kvale & Brinkmann, 2009, p131). Once I asked a question, I focused on using the interviewees' own response to prompt further discussion or pick up a theme that might result in another narrative. While the invitation to tell a story was not always taken up (especially early in the interview encounter), persistence with prompting lead to vivid accounts. When prompting I avoided 'why' questions (Why did you do that?), given the tendency for such questions to attract theorised responses, rather than eliciting a reflection on an experience (Holloway & Jefferson, 2000).

The interview in practice

In order to test the interview questions and prompts (see Appendix I), and the value of the property walk, and to practise interviewing, two pilot interviews were conducted outside of the identified study areas. As Kvale and Brinkman (2009) describe, interviewing is a skilled 'craft', and no amount of reading about how to conduct them can take the place of learning through practice. The pilot interviews were especially helpful in emphasising the importance of the follow-up prompt for encouraging elaboration on specific points. While the narrative approach and property walk worked well, the pilot interviews showed the value of artifacts in eliciting narratives (see further discussion on artifacts below), especially old photos of the property taken by participants. Becoming aware of the utility of artifacts resulted in me asking future participants whether they might have such images they would be willing to share. These pilot interviews were also helpful for charting emerging themes, and practicing coding and analysis.

Given my need to probe social interaction as a source of knowledge for management action, focus was drawn to management narratives involving landholders' communities of interest. In the pilot interviews, participants spoke freely and at length about their relationships with their neighbours. This discussion also turned quickly to the perceived poor land management practices of said neighbours, and in one case, a mention of relying more on 'people we've met from outside' for learning anything new. As such, I used prompts about neighbourly relations to transition into stories about possible communities of practice. Discussion of such influences came more freely than anticipated, with participants especially keen to talk about the social connections that underpinned their activities.

All of the narrative interviews were recorded using a personal voice recorder, with half the transcription done by myself, and half done by a professional transcriber (Sydney Transcription Services). Interviews ranged in length from 40 minutes to 3 hours, with an average of 1.5 hours.

Recruitment strategy, sampling and participant characteristics

Implicit in many case study research designs is a theoretical sampling strategy (as opposed to a random strategy) for selecting research participants, as the case itself has been selected in order to focus on a specific phenomenon. The need to recruit participants and non-participants in voluntary conservation schemes from both study areas was the primary driver of my recruitment strategy.

Participants were recruited in three distinct ways; 1) contacted on my behalf by an intermediary (coordinator of a conservation scheme), 2) snowball sampling and 3) recruited directly through a hand-delivered letter (via letterbox).

Recruiting landholders involved in voluntary conservation schemes required help from the coordinators of the programs, given the need to respect the privacy of participants. In order to help coordinators select suitable properties and landholders, I spoke with the coordinators about the rural-amenity context I was seeking to target. Also, I suggested selecting a group of participants that reflected a range of property sizes and land uses, with a diversity of vegetation quality and extent. This strategy was intended to reflect the heterogeneous character of rural-amenity landscapes, given my limited control over recruitment. Potential participants were forwarded the project description by the coordinator; those interested then gave permission for their contact details to be forwarded to me. Phoning potential interviewees gave me a secondary opportunity to assess their land use and ownership aspirations, to ensure they fitted the research context. Nine participants were recruited via this means, including the two pilot interviews.

The need to recruit rural-amenity landholders not involved in voluntary conservation schemes required a combination of snowball sampling and direct approach recruitment. Snowball sampling involved asking interviewees recruited in the first phase whether they could recommend neighbours or others in the region who might be eligible and willing to be interviewed (Maxwell, 2005). I provided my contact details to participants and asked them to pass them along. Only two interviews were generated in this fashion. Snowballing only resulted in two recruits due to participants in conservation schemes suggesting

other people who also participated in the same program. Other approaches were required to recruit a cohort of landholders who were not involved in any such schemes.

Recruiting a non-participating cohort of landholders not involved in voluntary conservation schemes presented the biggest recruitment challenge. To attract such people, I identified potential properties in the study regions from aerial photographs and mapping (looking for properties of varying sizes with some vegetation present). Between June and August 2010 I drove around the districts and dropped a written summary of the project, an invitation to participate and postage-paid self-addressed envelope in letterboxes. In total, 68 letters were dropped across both regions (26 in Bass Coast and 42 in East Corangamite) with 16 people responding. Of those 16 responses, nine interviews were conducted. Respondents not interviewed were either full-time farmers (2), were interested in the project but unavailable for interview (2), or responded well after my fieldwork had concluded (3).

Reflecting on previous qualitative research projects, especially those of graduate students, Rubin and Rubin (2005) noted that many would have benefited from fewer interview participants and more time for interview preparation and analysis. Having received similar advice from colleagues, I decided to gather and analyse data at a considered pace. Qualitative research projects – especially those involving novice researchers – can suffer from recruiting too many participants in order to conform to a pre-determined notion of a defensible sample size (Mason, 2010). Rather than conducting a pre-determined number of interviews and then reflecting on them afterwards, I reflected on each interview in my research journal (before transcribing the interview).

Once the transcription was complete and the interviews were coded, I reflected on the notes in my journal and the codes I had created, to begin building a picture of emerging themes. By doing this iteratively, ideas emerged as the research progressed, giving me a sense of when enough data had been gathered. Despite being time consuming, this iterative process of data gathering and

reflection is a key tenet of qualitative research practice (Richards, 2009). This process allowed me to determine the point at which emerging themes and ideas began to converge and consolidate, and when differing ideas that challenged early observations began to appear with diminished frequency. Ultimately this process resulted in 22 landholder interviews (including two pilot interviews) and four coordinator/extension officer interviews.

Table 4 presents some characteristics of the research participants and their properties and their participation in conservation schemes. This table serves as a reference point throughout the following chapters, to give additional context to individual narratives of participants. Moreover, these basic findings do not fit with the style of the empirical chapters, making this the most appropriate location. Participants are grouped according to the programs in which they participate.

The unusual inclusion of one pilot interview in the table of research participants is due to the insightful nature of that research encounter. I will expand further on this when Kelly's story comes up in Chapter 6, however, Kelly's brief insights served to reinforce existing themes already well established through other participant narratives, rather than contribute an opposing viewpoint that is used to question those themes. As such, the use of the pilot does not compromise the overall analysis.

Participant/s	Study area	Property size	Land Use*	Length of Tenure	Vegetation types
Trust for Nature					
Jim and Beatrice (also Land for Wildlife)	Bass Valley	~10 hectares	Conservation and lifestyle	15 years	Intact forest vegetation; open paddock
Steve	Corangamite	5 hectares	Conservation; horses, hobby farming	9 years	Intact open woodland area; revegetated section
Kelly** (pilot interview)	Adjacent district to Bass Valley	8 hectares	Lifestyle; conservation	11 years	Intact remnant forest
Liz (also Land for Wildlife)	Bass Valley	22 hectares	Conservation and home business	20+ years	Intact forest sections; open paddock; passively rehabilitating land
Rob	Bass Valley	6 hectares	Lifestyle and hobby farming	20+ years	Regenerated forest vegetation; paddocks
Non-participants					
Trevor	Corangamite	40 hectares	Retired/ hobby farmer (sheep and beef cattle)	20+ years	Scattered degraded remnant; revegetated area
Alex and Simone	Bass Valley	~15 hectares	Hobby farm (beef cattle); lifestyle	14 years	Intact forest with thick shrub layer; open paddock and adjoining degraded patch of remnant
Emma	Corangamite	6 hectares	Lifestyle	26 years	Re-growth eucalypt forest with dense patches of bracken understorey
Sally	Bass Valley	~10 hectares	Lifestyle and horses	8 years	Intact forest with thick shrub layer; adjoining horse paddock
Alice and Sam	Corangamite	~20 hectares	Lifestyle	14 years	Intact open woodland with sparse understorey vegetation

Participant/s	Study area	Property size	Land Use*	Length of Tenure	Vegetation types
Land for Wildlife					
Pauline and Allan	Bass Valley	116 hectares	Lifestyle; farming	12 years	Open paddock; revegetated linear tree plantings
Dan	Bass Valley	40 hectares	Retired farmer/ hobby farmer (beef cattle)	28 years	Open paddock; revegetated linear tree plantings
William	Bass Valley	2 hectares	Lifestyle; conservation	17 years	Intact forest vegetation (degraded)
Lauren	Bass Valley	40 hectares	Lifestyle/ hobby farm	22 years	Intact and re-growth forest; open paddock; tree plantings
Hannah	Corangamite	8 hectares	Lifestyle; conservation	18 years	Re-growth forest
EcoTender					
Nick	Corangamite	60 hectares	Lifestyle; hobby farm (cropping)	7 years	Degraded remnant; revegetation; open paddock; orchard
Jeff and Claire (also had a Trust covenant)	Corangamite	~ 80 hectares	Hobby farm (sheep); conservation	14 years	Regenerating remnant; open paddock
Tina (also Land for Wildlife)	Bass Valley	7 hectares	Lifestyle; conservation	22 years	Revegetated patch; open paddock; orchard
Maddy	Bass Valley	30 hectares	Lifestyle; hobby farm	8 years	Revegetated forest; open paddock
Karen	Bass Valley	10 hectares	Lifestyle; hobby farm	13 years	Degraded remnant forest; open paddock
Ken	Corangamite	130 hectares	Lifestyle	6 years	Remnant forest; open paddock and regenerating grassland

Table 4. *Only landholders who described the use for their property as ecological conservation have been noted as having a 'conservation' land use objective

**I refer to Kelly's management experience in later chapters so this pilot has been included in the table. The associated management practices of landholders will be tabulated later in Chapter 5.

Interviews with program staff

Interviews with program staff from Trust for Nature and the Department of Sustainability and Environment (Land for Wildlife and EcoTender) provided an outsider perspective on landholder conservation practice and secondary source of data. These interviews provided me with a generalised narrative of landholder conservation practice, which nicely complemented the personal experiences of management expressed by landholders. Furthermore program staff provided additional perspectives on how schemes operate on the ground, as opposed to their representation in policy documents and the perspectives of landholder participants.

Program staff had a wealth of experience in dealing with people who participate in conservation programs, including visiting their properties. Moreover, their knowledge of local conservation issues meant they had insights into the practices of non-participating landholders. Interviews with the coordinators (1) or extension officers (3) of voluntary conservation schemes were conducted prior to the landholder interviews (see Table 4.1 below). ‘Coordinators’ were program staff who oversaw the delivery of the schemes, and ‘extension officers’ were those who visited properties and interacted with landholders.

Table 4.1. Program staff interviewed; locating in which they work has been excluded to avoid the potential for identifying participants.

Participant	Program involvement
Melissa (coordinator)	EcoTender
Gareth (extension officer)	Trust for Nature and Land for Wildlife
Kerry (extension officer)	Land for Wildlife
Beth (extension officer)	Trust for Nature

The same narrative approach was adopted for interviews with program staff, but instead of eliciting stories of management, the coordinators were asked to tell stories of interactions with landholders and observations of private properties as a way of grounding their perspectives in their daily practices. This proved

particularly useful for the interrogation of conservation schemes presented in Chapter 7, as I could apply the perspectives of both landholders and program staff to the discussion of how schemes are being operationalised on the ground.

I interviewed program staff from both inside and outside the study areas presented in the next section, helping to get a perspective on whether there were common challenges across amenity regions generally.

Participant observation – ‘walkabout method’

If you want to study people’s behaviour and their interaction with their environment, the observations and informal conversations of field studies will usually give more valid knowledge than merely asking subjects about their behaviour (Kvale & Brinkmann, 2009, p115)

My research questions and conceptual framing are directly concerned with interactions with the environment, making a ‘field studies’ approach to data creation a vital component of this research. Evidence for the value of this approach was noted in the research of Knapp and Fernandez-Gimenez (2009, p502) (also see Riley, 2006) into ranchers farming practices, suggesting ‘the field component was helpful for connecting knowledge to specific places and practices’. As management practice on private land was my research focus, field studies meant engaging with landholders in the context of their property environments. As noted earlier, this consisted of walking around participant’s property with them, allowing the material landscape to serve as a prompt for discussions about past, current and future management actions. This process also served to validate discussions that had already taken place during the more formal interview process.

I borrow the term ‘walkabout method’ from Strang’s (2010) description of the value of walking with people in the environments they consider to be of significance. This attention to material environments during the research

encounter reinforces the conceptual contribution of this method; if a perspective of human agency as situated in a biophysical context informs the conceptual framework, this embeddedness must be reflected in the methodology. As Strang (2010) notes, walkabout methods are useful for eliciting stories and experiences, as material environments with cultural significance act as repositories of memory. In this way, walking the property gives a voice to the landscape as an agent of influence in shaping landholder management practices.

The property walks allowed me to get a real sense of how ecologies had changed over time, based on stories of change rooted in the growth, spread and even death of trees and plants. Changes in management practice over time were also observable. For example, being able to compare a landholder's first planting with their most recent efforts, and then talking about these changing practices had come about, provided critical insight into the temporal dimensions of management practice. Two participants chose not to walk the property with me (Maddy and Sally), but were happy for me to walk alone and ask them questions later. The shortest property walk took around 40 minutes, with the longest being nearly four hours. Most walks took between one and two hours. I took photos during the walks to document the experience for later analysis (this process is discussed below).

As each walk progressed, participants opened up about their management practices as the research encounter became more informal and relaxed. This indicated the ethnographic phasing of my research (described above) was successful. The fact that several people began to ask my advice about management issues as we walked around suggested a level of comfort and rapport. Another unanticipated benefit of the ethnographic phasing was that landholders could mention a complex practice or event during our formal interview in the knowledge we would see evidence of it later when we walked around. This allowed the telling of complex stories or events, knowing they could be contextualised or expanded upon at a later time.

It is important to note that I actively participated in management on four different properties during the walkabout. Some landholders pulled weeds, fixed plant guards or dragged branches off tracks during my visit, and I assisted happily. This meant I was not only able to observe and discuss past practices and their embodiment in the landscape, but participate in some of those practices in a small way.

During the walkabout notes were taken on a field sheet, which had a column for direct observations as well as my reflections on the process. Immediately following my visit to the property, I expanded on the brief 'jottings' in my field diary (Emerson, Fretz & Shaw, 1995) to create a rich record of the walkabout experience; this occurred as soon as possible after leaving a property. As noted above, I took photos during the property walk; these helped me to recall events and provided a visual record to accompany the stories of management. Photos like the one below (Figure 4) appear throughout the following chapters, providing important context to the themes discussed.



Figure 4. Images like this were taken on all of the property walks, giving context to various management issues. This image of William’s property shows the hard boundary between the vegetation on his property and the open farmland on the other side of the fence, highlighting the heterogeneous land uses of rural-amenity landscapes.

Artifacts, aerial photos and ‘hanging out’

Artifacts

In one of my early interviews conducted, the participant greeted me with a photo album of images showing the property as it was when he moved there a decade earlier. This album proved a useful catalyst for discussing changes to the landscape over time. In keeping with a reflexive approach to research (discussed further below), I began asking landholders whether they had photos of their property from soon after they in-migrated. This photo elicitation method (Beilin, 2005) proved a fruitful avenue for opening up discussion and encouraging storytelling.

Like the participants’ own photos, aerial photos of the participants’ properties and the surrounding landscape helped to uncover the spatial relationships (both social and environmental) that impacted management practice. Three interviews

were conducted across an aerial photograph on the kitchen table, with the participants themselves bringing out their own photos when the issue of neighbourly relationships came up. The ability to point to neighbouring properties and discuss what was going on then look over the fence during the walkabout brought life to these stories. Photos as artifacts were vital in grounding stories in the landscape and bringing spatial relationships to the fore, emphasising the contribution that such artifacts can make in narrative and oral history interviews (Riley & Harvey, 2007).

'Hanging out'

In keeping with an ethnographic approach, I took several opportunities to attend community environment meetings, policy discussion groups and other gatherings at which the issue of private land conservation was discussed. By 'hanging out' (Madison, 2012) in places and spaces where such issues were being discussed, I increased my familiarity with the challenges faced by policy-makers and landholders in managing private land for conservation. Key events are listed below:

- Attendance at a 'Covenanter's Day' (March 2010) – Landholders with Trust for Nature covenants meet annually to discuss management issues and share ideas. This event was attended prior to starting my interviews, giving some background to the experience of being a covenant holder,
- Meeting policy makers (seven different individuals) involved in the implementation of conservation schemes, both in government and non-government organisations (Between September 2009 and March 2012 – various locations). These were especially useful for gaining insight into the political support (or lack thereof) for private land conservation policy (an issue further discussed in Chapter 7, specifically in relation to the decline of the Land for Wildlife scheme). These meetings showed me that rural-amenity migration was seldom considered in the design and implementation of environmental policy.

These secondary sources provided background to the nature of landscape and land use change in a region, but also gave insights into landholder practice and

the contemporary policy sphere that were not reflected in policy documents and regional land use strategies.

Policy analysis

While forming a relatively minor component of the research methods, policy analysis was important as it allowed identification of the objectives of the voluntary conservation schemes I studied. This analysis served as the basis for comparing the objectives of the scheme with their operationalisation on the ground, as required for the embedded case study on the three programs. Policy analysis was based on three document sources: 1) descriptive policy documents, 2) promotional and explanatory literature for each scheme, and 3) existing reports and evaluations of schemes.

Policy documents describing the intention of the schemes and the manner in which they are intended to operate consisted largely of material located online. These documents are cited in Chapter 7 in the description of each of the schemes. Two sets of documents were formally requested as part of this review; the 2010 annual report for Trust for Nature (Trust for Nature, 2010), outlining the number of covenants signed that financial year, and the biannual strategy reports for Land for Wildlife (Land for Wildlife, 1999), which outline the objectives for the program in a given region for the next two years.

Although I was primarily interested in the descriptive policy documents, my analysis extended to promotional and educational literature surrounding the voluntary conservation schemes. These documents are often participants' first exposure to conservation schemes. This is especially true of EcoTender, a more recently introduced scheme that has generated a large volume of explanatory literature. All three schemes produce a magazine or newsletter that is sent to participants on a varying basis. The content and contribution of these documents is discussed in Chapter 7.

Finally, the policy analysis process involved analysing the reports and evaluations completed on these programs. This includes reports completed or commissioned internally by policy makers, as well as external reports conducted by other institutions considering implementation of the program in a different context or location. These investigations were useful for documenting issues participants had been having with the scheme, as some involved interviews with or questionnaires completed by participants. Reviews such as these also highlighted implementation challenges and how they were or might have been overcome. As with the other documents, these evaluations contributed to an overall picture of the objectives of private land conservation programs, helping to establish a basis for comparison to landholder perceptions of these schemes.

Data Analysis

A key consideration for approaching the analysis of qualitative data is how to translate the research encounter into a research output that retains the data's context and complexity (Richards, 2009). This means allowing the events surrounding the research encounter to be maintained during analysis and interpretation. Maintaining the context of the research encounter was a focus of my research design, as the social and biophysical contexts surrounding management practice were the primary focus. Adopting an approach that fulfilled this objective helped me to carry the conceptual framework all the way through to data analysis (Miles & Huberman, 1994). In this section I outline how my approach to data analysis was informed with this in mind, and how it was carried out in practice.

In looking to retain the complexity of the qualitative data, data analysis was informed by an open thematic coding approach (Richards, 2009). This is best described as a coding method that produces data based on a descriptive characteristic, with the intention of building towards a theme that brings a holistic meaning to those descriptive codes (Saldana, 2009). I borrowed this technique from a Grounded Theory approach to data analysis (Richards, 2009). For example, a story about interacting with one's neighbour over a land

management issues might be descriptively coded as 'neighbourly interaction', but the content of that code (its complexity) would help to build a theme that brings meaning to this interaction and its impact on practice. As such, thematic analysis is aimed at drawing together ideas at a level above the absolute detail contained in field notes and interview transcripts. Richards (2009) calls this 'lifting up' off the data, which facilitates moving beyond pure description of events, towards the analysis and interpretation of phenomena. It is in the analysis and interpretation of data that research contributions are made (Miles & Huberman, 1994).

Descriptive codes of interview transcripts were kept very 'coarse', meaning whole stories or parts of stories about an event may have been given only one descriptive code. This helped to avoid fragmenting data to the extent that it was unrecognisable from the narrative in which that statement was derived. By coding the field notes and photographs taken during the walkabout, along with the interview transcripts, all of the data collectively contributed to building a thematic picture of conservation practice and its influences. The photos were especially useful in keeping the landscape context in mind.

I used the qualitative research software NVivo to assist in data analysis. NVivo is suited to research oriented towards theory-building and thematic analysis (Miles & Huberman, 1994). The ability to organise individual codes in a tree-structure system, where related codes can be organised under a thematic heading, is well suited to a thematic analysis. Having all the data in one place with the ability to link codes together, allows for contrast and comparison between emerging ideas. While cognisant of the criticism that computer software can make qualitative data analysis prescriptive and formulaic (Silverman 2009), NVivo proved beneficial in handling a large amount of qualitative data. The ability to write memos about each of the descriptive codes created within the program and link them together, greatly assisted in 'lifting up' off the data and creating themes. Ultimately, the processes of writing *about* the codes and their meaning in the form of memos, helped to build the major research themes that eventually evolved into thesis chapters or sub-sections of chapters. Having built these

themes, I then compared the themes against the codes that generated them to ensure they were grounded in the data.

Concurrent data analysis and data gathering

As noted previously, a key tenet of qualitative research is reflexivity in research design, enabling adaptation to changing conditions and experiences as they are encountered in the field. To be reflexive in this way, however, requires that data making and data analysis be conducted concurrently. As Marshall and Rossman (2006) pointed out, treating data making and analysis as analogous tasks allows the researcher to learn from and improve the study design as the research progresses, rather than learning those lessons at the end. As such, I attempted to stagger the interviews at one per week, allowing me time to prepare and conduct the interview, then undertake a 'first cut' thematic coding, in which transcripts were annotated to allow interesting or prominent ideas to emerge. The more thorough coding process described above continued throughout the fieldwork, but this first-cut analysis was always conducted before the next interview took place. As has already been mentioned, this process led to me asking participants if they would be willing to share old photos of their property to help encourage a storytelling process.

A second benefit of concurrent data analysis (already mentioned in the discussion of interview methods) was the ability to determine the point at which major themes regarding management practice began to recur frequently, suggesting I was reaching a point of diminishing returns.

Addressing measures of 'quality' in qualitative research

In this section I outline measures of quality in qualitative research, and how my project sought to adhere to them. While qualitative research is a legitimate approach to research in geography and wider social science disciplines, challenges remain in defining means for determining its quality (Flyvbjerg, 2006; Golafshani, 2003). Generalisability, validity and reliability have traditionally been the markers used to assess quantitative research, but these measures are

less relevant outside of a research context informed by a positivistic viewpoint (Golafshani, 2003; Tracy, 2010). I borrow from Tracy's (2010) criteria for excellence in qualitative research to position concepts like rigor, sincerity, reflexivity (reflexive methods as opposed to reflexivity in research design as already discussed) and ethics as indicators of sound research. I also look to show how generalisability can be achieved in analytic form, rather than in the statistical form used in quantitative research (Yin, 2009). These measures sit alongside other determinants of quality discussed elsewhere in this chapter and thesis, namely research worthiness, research contribution and coherence.

'Analytic' generalisability

Broad generalisation of phenomena is not the objective of this research project, given its fine-grained analysis of phenomena within a case study setting. However, this does not discount the ability for my research to contribute to collective knowledge development regarding conservation in rural-amenity landscapes (Flyvbjerg, 2006). Nor does it preclude my ability to make qualified generalisations on the conditions giving rise to phenomena – in this case, management practices. As Sayre (2004, p673) observed of qualitative research on ranchland management practice: 'qualitative research cannot be expected to yield causal predictions for other sites, but it can identify conditions that appear to make sustainable rangeland uses possible or impossible, likely or unlikely' . Applied to my research, the intention is not to assess the generalisability of specific landholder practices, but to identify how the conditions in which these practices emerge could provide wider insights for research and policy in rural-amenity landscapes.

This type of generalisation can be referred to as analytic generalisability (Yin, 2009; Maxwell, 2005). Indeed, one of the strengths of a case study research design is the focus on building concepts and theories from an in-depth interrogation, allowing for comparison to other cases. This highlights that qualitative research can have broader implications through contrast or corroboration with similar studies within a body of scholarship.

Rigour

In this section I focus on the processes associated with *entering* the field to demonstrate the rigour of the preparation I undertook (Richards, 2009). The rigour associated with fieldwork and exiting the field is discussed in the ‘sincerity and reflexivity’ and ‘ethics’ sections, respectively. Prior to conducting interviews, flora and fauna guides were consulted in order to enhance my basic plant identification skills. This helped me to identify vegetation types found on properties, as well as gauge the level of knowledge possessed by landholders about different species. Agricultural newspapers, Landcare newsletters and ‘Friends-of’ Group (community-based conservation group) websites were explored to identify topical land use or management issues in a region. This background to entering the field made me aware that many rural landholders were concerned about the growth of vegetation and pasture following the recent breaking of a decade-long drought in the region (2008-2009) and how this new growth should be brought under control.

Research logic

A research design that facilitates the answering of the research questions is a clear indicator of rigorous methodology. Accordingly, Tracy (2010) noted that all aspects of the research process, from problem setting to data analysis, must represent a progression of logic. Figure 4.1 broadly summarises the research logic of this project:

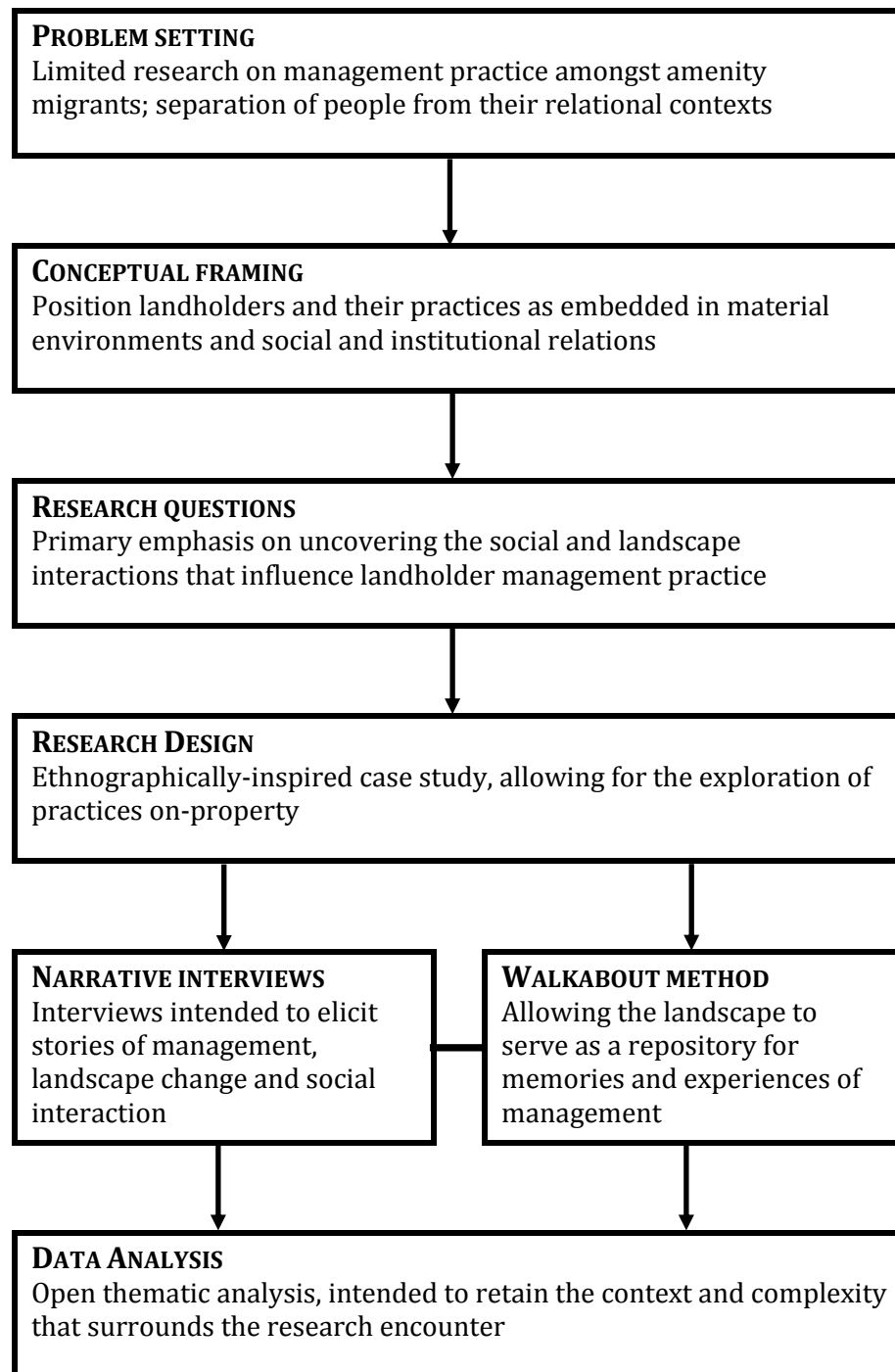


Figure 4.1. The link between the problem setting, research question, theoretical framework, methodological approach and data analysis demonstrate the alignment of the various stages of my research.

Sincerity and reflexivity

Qualitative research can be undertaken without many research tools in the sense of equations or models for producing data. For this reason, it can be easy to overlook one's own position as a 'research instrument' in the production and

analysis of data (Piantanida & Garman, 1999). As noted at the outset of this chapter, I sought to position myself as part of the research process, and an active component in the production of data through the interviewer-interviewee relationship.

Field journal – reflexivity in the field

Recording reflections in my research journal immediately after a property visit proved a critical component of reflexive data production. This was especially true for tracking early impressions of themes and concepts as they emerged. As already identified, reflecting on interviews helped to refine my technique by enhancing the role of photographs. These photographs often showed what the landscape used to be like. Following this I began asking potential interviewees in advance if they might have some photos of their property they would be willing to share.

Keeping a journal helped me to compare my thoughts directly after the interview to the codes and themes that emerged from the data analysis. If there was a disjuncture between the initial thoughts and the codes, I probed all data from that visit to reconcile conflicting records. In this way, the research journal served as a source of data for reflecting on fieldwork and data analysis (Richards, 2009). It was through this process that I realised participants were suggesting they had limited need for extension material (notes and guides) during the interview, yet asked me lots of management-related questions as we walked the property together. As participants became more comfortable with my presence, these questions became common. This gave me a first hand experience of the extension process, and how on-property extension works different to simply making knowledge available for landholders to ‘find’ of their own accord. These insights proved vital for considering the role of extension in future policy (discussed in Chapter 8).

Transference

It is important to reflect on how research participants perceived me and how those perceptions may have impacted on the research process. Some

participants may have seen me as a researcher doing work affiliated with a government agency (given the assistance of the program coordinators in helping me recruit participants). Given the potential for some landholders to be suspicious of government intervention involving private land conservation issues (Reeve, 2001), this may have resulted in hesitancy to share certain views about government or policy. Encouraging participants' stories helped to build trust in this regard, lessening concerns that I harboured ulterior motives for visiting their property.

How interviewees perceived me also influenced the way their stories were communicated, including the terminology used. Some participants assumed that I was unaware of local land use issues, the farming history of a district or how specific farming practices are conducted. However, I believe that by demonstrating some knowledge of local and technical issues gave participants confidence that they did not need to 'dumb down' their stories and potentially avoid subject matter critical to the research.

Positionality and the researcher 'self'

As Piantanida and Garman (1999, p24) noted, the 'professional experiences, personal intellectual concerns, and assumptions about knowledge' that are carried by researchers are pivotal foundations for informing an inquiry. Below I reflect on my professional and personal background as key 'subjective-contextual' (Chiseri-Strater, 1996) dimensions that shape my positionality as a researcher. This helps to bring reflexive attention to the 'researcher', and not just the researched and their context (Rose, 1997). In this section I deal largely with positionality as it applies to my research motivation and interaction with research participants. I return to this discussion of positionality in the conclusion of the thesis to address how my positioning influenced my interpretation of data and subsequent findings.

I came to this study with a professional background in environmental management. I had dealings with landholders concerning town planning and property management issues in a different part of Victoria. As part of those

dealings, I had made numerous visits to landholders' properties to discuss land management issues with them. This experience was pivotal in shaping and directing the way I engaged with participants in this study, especially when I visited and walked their property with them. The most important dimension of this was not to pre-judge the management practices of landholders based on a first impression of their property on arrival. This is especially important when landholders have recently purchased a property, and have inherited land management challenges like weeds and past land clearance. When walking a property with a participant I was also conscious that, in my experience, people are keen to show you the best parts of their property. This meant encouraging landholders to identify areas of their property where they experienced both management successes and failures, and talking through the practices that shaped those outcomes.

My professional background also meant I had prior knowledge of voluntary conservation schemes at both a policy level and at a practical implementation level. Importantly, this knowledge led me to believe that voluntary conservation schemes had an important role to play in achieving conservation at the landscape scale. Moreover, it led me to the conclusion that such schemes were often being adopted by landholders for reasons that differed from the stated program objectives. Indeed, this point served as part of the motivation for wanting to pursue this study and incorporate a policy component to the work. In many cases, this understanding helped me identify with the interview participants through stories from my experience interacting with other landholders who had participated in similar schemes. I believe this gave participants some confidence that I knew how the schemes operated. In some cases, this may have also meant that landholders were more comfortable detailing some of the challenges they faced dealing with the intricacies of the schemes, and the issues they may have had with their implementation.

In terms of policy knowledge, my background also helped in my dealings with government departments and coordinators/extension officers, as I brought

knowledge of the policy context and the associated jargon that made it easier to engage in casual conversation.

I grew up on a small amenity property myself and knew people who cut down trees and cleared scrub, but loved to live in the bush and would never contemplate living in a treeless suburb. Whilst growing up in such a context undoubtedly shaped my connection to a version of the Australian bush, it also left me with an impression that the people living there were not entirely comfortable with its presence. This perception undoubtedly influenced the way I framed this research project, in the sense of wanting to probe the relationships and conflicts between people and the landscapes they occupy.

Ethical considerations

The most important ethical dimension to research is to protect the identity and dignity of research participants at all times (Guillemin & Gillam, 2004). In this thesis, pseudonyms are used for all participants to maintain confidentiality, but this alone is not sufficient to ensure that participants remain anonymous. References to events or to features of the landscape might also reveal the identity of a participant. For this reason, I have checked that quotes do not make participants easily identifiable to other people from within their local community. In a few cases, where interview material from program coordinators has been utilised, passages from extension staff have been summarised rather than quoted due to the potential for the language of the participant or the themes they discussed to make them identifiable.

Participants were often interested in who else I may have spoken to locally. In such situations, I explained that protecting the identity of all participants was a research requirement, which included maintaining their anonymity to other participants. In most cases participants were not concerned about being identified, except when it came to their views on the conservation schemes in which they participated. In three cases, landholders asked whether I would be passing on information about their property to state government agencies. I

replied that state government agencies were funding the project, but no identifiable information would be communicated to government partners, and no files were being compiled on the ecological values present on their property.

Avoiding identifying participants was important when taking photographs during property walks. As such, I avoided photos of people and very distinctive characteristics of their properties. No photos were taken of houses or outbuildings for this reason.

In navigating ethical issues in research, there is a subtle but important difference between procedural ethics and practice ethics. Adhering to the procedures required by a university ethics committee is one aspect of ethical research, but the other is dealing with unanticipated events in the field where no clear procedure is applicable. Guillemin and Gillam (2004) refer to this as navigating 'ethically important moments' in the process of research. For example, an unanticipated ethical consideration was the potential for participants to identify other landholders in the district in the course of their stories about living in rural-amenity landscapes. Largely through detailed explanation of land use practice, a small number of participants made the identity of neighbours very easy to determine from interview transcripts for people who knew these areas. While it was quite difficult to determine when a neighbour was being uniquely identified, I avoided using some examples from participant narratives where I felt this was an issue.

This project was categorised as low risk by the Design and Social Context Human Research Ethics Subcommittee at the Bundoora campus of RMIT University. The reference number for the application was: CHEAN B-2000292-02-10. As part of the formal ethics process, all participants were required to sign 'informed consent' forms prior to conducting interviews; these outlined the intention of the research and the requirements of the researcher to maintain secure and confidential records of interviews and photos. Signing also confirmed agreement for our interview to be tape-recorded. Participants were offered a transcript of the research should they want to check the contents for errors, or to ensure they

were happy for me to use the material they disclosed. No participant requested a transcript; most simply wanted to be informed about the research as it progressed.

The formal ethics process required me to provide participants with a 'plain language' statement, which explained the research and its intended uses (Appendix II). This document included the contact details of my primary supervisor and a liaison contact for the RMIT University Ethics Committee should participants have any concerns about my conduct or the research process in general.

The process of leaving the field, or 'exiting ethics' was also considered (Tracy, 2010). The formal interview was generally concluded with an open-ended question to allow participants to express concerns or provide views on topics not covered in the interview. While I was conscious that discussions about life on their property under challenging circumstances such as drought or bushfire might result in emotional responses during interviews, no participants appeared upset or uncomfortable with the process. Stories of ecological 'loss' and changing landscapes were often solemn, but at no time were participants uncomfortable. Indeed, in many instances, the telling of these stories appeared to serve as a cathartic experience (Thomson & Holland, 2003). Some participants informed me that some experiences with neighbours or management challenges had not been described before, or at least not outside of the immediate family. All participants were encouraged to reflect on the interview and decide whether they would like to retract a certain story or event (or even the whole interview), their request would be met. Most participants expressed interest in hearing about the results of the research, and summaries of key findings have been provided to all participants except one, who has re-located to an unknown address.

Methodological limitations

The final measure of quality in qualitative research to be dealt with here is the need to be transparent with the limitations and challenges associated with implementing the research design. Four limitations require discussion here: 1) sampling challenges, 2) landholder characteristics, 3) selection bias and 4) a repeat visit.

Firstly, in conducting research on conservation issues, especially work that involves extended access to private property, there is always the risk that it will only attract landholders who are ‘conservation-minded’, while people with strong productivist or ‘anti-green’ views will simply not reply to requests for an interview. In fact, as is explored later, many participants described some ecologically damaging land management practices and others admitted to having some ‘anti-green’ sentiments. However, no participant resented not being able to remove vegetation from their property, as could be expected from landholders at the ‘anti-green’ end of the land use spectrum. While insights from such landholders may have been useful, my previous professional experience led me to believe that most people’s views lie somewhere in the middle of the spectrum of land management (green to anti-green). As can be seen from the Table 4, I believe this ‘middle ground’ of conservation attitudes was well reflected by the range of participants in my study.

Another sampling challenge was the difficulty recruiting absentee landholders for participation in my research. The recruitment methods may have favoured responses by landholders who occupied their property full-time – especially the letter drops directly to properties. (Only one participant (Rob), had been an absentee owner in the past, but recently moved to his property full-time.) As noted in Chapter 2, the occasional occupancy of rural properties resulting from absentee ownership has important implications for environmental management, making it a vital issue for future research. I reflect further on this future research potential in Chapter 9.

Secondly, Table 4 shows that many participants had been on their property for a decade or longer. No participants had been on their property for five years or fewer. This means that the voices of landholders who have just moved to the land are not reflected in the analysis. The length of property ownership has been raised as a potential factor in understanding landholder practices, suggesting this is indeed an important issue for consideration (Abrams et al., 2012). Efforts were made to target landholders thought to be recent in-migrants by asking participants if they knew any new residents. This resulted in one interview, but in fact the 'recent' in-migrant had been a resident for eight years. Attempts to coordinate with one local council to identify new residents proved fruitless. Ultimately, time constraints on this project prohibited attempts to recruit more recent in-migrants.

There were some benefits to recruiting longer-term participants, however, as people who had lived on their property for more than five years had a strong body of experiences in the landscape to reflect on. They had also had time to affect management practice, and for these practices to have become evident in the landscape. For example, many trees that were planted years earlier had matured, resulting in a range of new management tasks. Moreover, there was ample room for participants to reflect on how their practices had changed over time, with formative management experiences proving a common reflection for many participants (formative experiences are a key component of Chapter 5). This issue of length of tenure would perhaps be of more concern if amenity migration had a very short history, but as was outlined in Chapter 2, amenity migration has been underway for decades in Australia.

Thirdly, in focusing on landholders involved in voluntary conservation schemes, it could be argued that this project does not reflect the heterogeneous land uses associated with rural-amenity migration. Participants in this project might be more active land managers than the 'average' lifestyle-orientated property owner. While this may be the case, both the literature and my personal experience suggest that participation or non-participation in a conservation scheme is not always a useful proxy for indicating the extent of conservation

practice undertaken by an individual landholder (Fitzsimons & Carr, 2007). Including a non-participant cohort of landholders was intended to help counteract this bias towards conservation program participants. This helped to balance the sample, but ultimately, landholders conduct so many unique individual practices, it becomes difficult to label one landholder as a more committed or effective conservation practitioner than another.

Finally, this research may have benefited from repeat visits to the properties, given that many participants tended to share more management stories the longer we spent together (Riley, 2010). Apart from one phone call to clarify a part of a transcript, I had no further research encounters with participants. This was due largely to the additional time it would have taken to conduct a second visit, and a consciousness of not wanting to over-extend my welcome with people who had already been more than generous with their time.

The limitations and challenges outlined above demonstrate some of the difficulties associated with the study of conservation issues on private land, particularly issues of recruitment and accessibility (Hilty & Merenlender, 2003). As Hilty and Merenlender (2003) suggested, these difficulties have meant that ecologists and other researchers have often worked on public land to avoid these issues. However, persistence in spite of these challenges is important to increase our understanding of private land conservation.

Conclusion

In this chapter I chartered my research design for exploring the processes and outcomes of landholder management practice in two regions of Melbourne's hinterland in 2010. An epistemology grounded in social constructivism linked the conceptual framing of management practice described in Chapter 3 to an ethnographically-inspired case study research design. Interviews and property walks with rural-amenity landholders were the core the research methods. Interviews with staff involved in conservation schemes and analysis of policy document were also conducted to add insight and inform the policy-orientated

sub-cases. Combined, this approach met research design imperatives for multiple sources and multiple methods. In line with the research design, an open thematic coding strategy was employed for the data analysis phase, to help retain the context and complexity surrounding the research encounter.

I followed Tracy's (2010) suggestion for conscious reflection on how quality in qualitative research is pursued and measured to confront these issues in the second half of this chapter. I charted the steps taken to achieve a sincere and reflexive approach to research, while ensuring a rigorous research design that would address research objectives. I followed with an outline for how analytic generalisations would be pursued in subsequent chapters, allowing for concepts and theories to be developed from empirical work. Also covered were the ethical considerations applied to the research design, as well as how ethically important moments were navigated as they emerged in the field. Finally, this chapter concluded with a reflection on the methodological limitations of the study.

Chapter 5

Amenity values, knowledge generation and the emergence of stewardship dispositions

Introduction

The task of this chapter is to explore the processes of knowledge generation that sit behind management praxis. The conceptual work of Chapter 3 in connecting knowledge and learning to praxis makes this an appropriate entry point to the empirical work. In drawing out the processes by which landholders learn about management and then implement that knowledge in the landscape, I draw out the association between amenity values and knowledge generation. Finally, I identify the way knowledge solidifies over time into a durable overarching perspective on management practice and ecosystem function. These guiding structures for management are labeled ‘stewardship dispositions’.

This chapter begins with a definition of the ‘amenity’ landholders are pursuing through in-migration. Four key values are identified; 1) owning amenity, 2) seclusion, 3) domestic space, and 4) stewarding ‘my patch’. ‘Owning amenity’ outlines how the property space contains much of the rural amenity landholders seek through in-migration. Seclusion addresses the desire for privacy and to escape suburban living, and the making of domestic space shows how landholders look to create safe and homely spaces to ‘settle’ their new surrounds. Finally, the desire to be a steward of ‘my patch’ shows how landholders aspire to be custodians of the landscape.

After defining amenity, I expose the role amenity values play in dictating landholder engagement with sources of knowledge for management. The steep learning curve associated with moving to a rural area meant knowledge emerges quickly through direct experience of the landscape. The work of Chapter 3 in giving agency to the landscape is particularly helpful in capturing the extent of

experiential learning. In this chapter I aim to show how this learning is inherently tied up in the pursuit of the amenity values noted above.

I applied social learning theory to explore how participants learn through social interaction as well as through experience of the landscape. The focus of this section is the proximal dimension to learning through social engagement. I draw on the amenity values of seclusion and property ownership to show how they influence patterns of social learning. I conclude the section on knowledge generation by discussing how experiential and social learning interact and relate to one another.

Finally, I advance the idea of stewardship dispositions to show how durable perspectives on management and ecological function evolve through the selective knowledge engagements introduced above. These dispositions are classified as either 'active' (hands on, interventionist) or 'passive' (hands off, abeyant), with each guiding a unique approach to management practice. In unpacking these dispositions I question the traditional association of passive stewardship with negligent management, and active stewardship with positive management (Abrams et al., 2012; Gill et al., 2010). Exposing the process by which these dispositions emerge and settle over time serves as a basis for later discussion of implications for conservation policy that seeks to engage with landholder stewardship.

The amenity pursuit

In Chapter 2, 'amenity' was identified as the appropriate term to describe lifestyle-orientated in-migration to rural landscapes. This term encompasses a range of motivations, not just conservation interest, so is an appealing descriptor. Learning how participants enact amenity helps to reveal the a-priori knowledge of rural landscapes, as well as their aspirations for conservation and lifestyle.

My objective in this section is to identify what represented amenity for the participants in this research, and how the pursuit of this amenity actually manifested itself in management knowledge. These amenity values are an important reference point for the remainder of the thesis. As the empirical chapters progress, and amenity values are linked more closely to management, they are a touchstone for the progression of my arguments. As such, I present four key elements of amenity valued by the landholders involved in my research; 1) property ownership, 2) seclusion, 3) creating a domestic space, and 4) ecological redemption.

Owning amenity

A pervasive amenity value interwoven with the others listed above was the desire to *own* the amenity experience. In other words, much of the amenity participants were seeking through in-migration could be found *inside* the bounds of their property. Nick expressed this simply; 'it's a good place to live... that's the main reason we bought it'. Claire echoed Nick's sentiments when stating they were in search of 'a beautiful place to live in' when they bought their property. This notion of living 'in' as opposed to living 'near' something was a quite deliberate sentiment, with six other participants making similar references. Steve spoke directly of a desire to 'own a bit of bush', with William buying his property for the appeal of 'living in amongst (the bush)'. Occupying a property where the amenity values of the landscape were tangible and immediately apparent was clearly important to participants.

Emma continued this theme by noting:

That's what first attracted (us to) the idea of having land around the house, where you can move around a bit.

To Emma, the 'space' provided by a rural-amenity property was just as important as the broader aesthetic and intrinsic values of being in the landscape. Purchasing a piece of this landscape enabled participants to 'move around' in a variety of ways, demonstrating the enjoyment of autonomous ownership.

Building sheds to store firewood, buying a tractor or installing a water tank were common activities for landholders to conduct soon after property purchase. Such activities revealed a desire to be more self-sufficient and actively enjoy the property space. Some participants saw themselves as a 'king in a grass castle' (Maddy), meaning their property gave them a sense of freedom to pursue whatever land uses appealed to them.

Ownership is a crucial aspect of amenity as it reflects the desire to accommodate oneself within the rural landscape (Larsen et al., 2007). Thus, while natural amenity in the form of landscape aesthetics and 'space' are important (Argent et al., 2010), there is a proximal dimension to this in-migration pull factor. In this sense, landholders want to actively experience the amenity of rural landscapes, not simply observe it from a distance. As I will expand on later, this is a critical context for understanding how management knowledge emerges.

The 'right' to seclusion

The desire to live in a natural landscape setting was often closely associated with a sense of escapism, especially for the 14 participants who had moved from urban settings. As identified in Chapter 2, the 'peace and quiet' associated with the rural idyll can be a powerful motive for amenity-migration (Argent et al., 2010; Gosnell, 2011). As Alice said, 'it was getting so sort of urban where we were', so they 'wanted to move out and get a bit further away from the neighbours' (Sam). These findings reveal an interesting relationship between neighbours and 'seclusion' that has potential implications for management practice.

Several participants specifically mentioned that their neighbours were a key element in achieving or maintaining a sense of seclusion on their property. Sally's suggestion that 'having good neighbours makes it easier to come home', exemplified how good neighbourly relations impacted enjoyment of property and 'home'. In many cases, good neighbours were those who were silent and invisible for most of the time. Indeed, five landholders indicated that the first planting activities they conducted on their property were intended to visually

‘screen-out’ (Hannah) some aspect of their neighbours’ property. When remnant vegetation had died back due to drought conditions, and neighbours’ properties became visible, this sense of seclusion was ruptured. Both Jim and Beatrice were impacted by such changes, as was Kelly. Kelly treated this ‘opening up’ of the landscape as an intrusion into the solitude and perceived detachment he previously enjoyed from the properties around him. Such views show how seclusion is important to the participants’ amenity pursuit.

Kelly’s views demonstrated how the idea of seclusion connects to the ‘rights’ associated with property ownership. Indeed, three landholders directly stated that ‘your land is your business’ (Maddy). This concept included a general right to limited interference from neighbours. In an earlier clarification of the idea of property, I noted the potential for amenity migrants to view ownership rights as designating absolute control over land use (Knoot et al., 2010; Yung & Belsky, 2007). While only three landholders expressed their rights in such strong terms, the general idea that ownership denoted a right to be left in peace was more widely held. Such attitudes also meant participants were conscious of not wanting to ‘pry into [the] business’ [of their neighbours] (Lauren). The consequences of these attitudes for the generation of management knowledge at the neighbourhood level are significant and discussed later in this chapter.

Establishing a domestic space

Living in a rural or semi-natural landscape was a core amenity value, but many participants wanted this landscape to be a ‘semi-civilised’ (Emma) setting. In this sense, landholders were keen to create space around their home that was safe and familiar. This ‘envelope’ (Kaika, 2004, p271) of familiarity assisted landholders to ‘settle’ in their new surroundings. As Hannah noted:

A property like this seems all very idealistic, but it can be quite harsh

Insulating oneself in some way from the harshness of the landscape often meant clearing vegetation around the home to protect against wildfires. Seven participants had actively removed trees or understorey vegetation to reduce fire

risk, while a number of others avoided planting trees near the home to avoid such risks. Rob was one of a number of landholders who felt they had been 'naïve' about the sense of vulnerability they would feel living in the bush, especially after narrowly avoiding wildfires in recent years.

A similar practice to vegetation removal for wildfire protection was the establishment of a lawn and formal garden around the home. This was a space in which nature was domesticated in order to provide a similar type of comfort to the home itself (Power, 2009). Many participants planted ornamental species that embodied memories of a previous home or linked to their family's migrant history. William's decision to plant rhododendrons amongst some existing natives was seen as achieving the 'best of both worlds', as his suburban upbringing and interest in the Australian bush were blended together. The relationship between management practice and the desire for domestic nature is unpacked further in Chapter 6.

The importance of domestic space was reinforced through participant stories of neighbours who 'found it too hard' (Hannah) to settle in the bush and moved back to the suburbs. Five landholders mentioned such instances, supporting suggestions that landholders can underestimate the challenge of living in a rural environment (Mendham & Curtis, 2010). Being able to maintain a lawn and garden, especially in the early phases of in-migration, appeared an important step for many landholders in establishing a lifestyle and sense of comfort in previously unfamiliar surrounds. Thus, unlike the previous two a priori amenity values, 'domestic space' was something landholders came to value through the early phases of in-migration.

Stewarding 'my patch' – a chance for redemption

Alongside the amenity value of owning a rural property was the opportunity to steward the land in a more ecological sensitive manner than had previously been the case. (Stewardship is introduced here as an amenity aspiration landholders had for property, while the later section dealing with stewardship dispositions unpacks what stewardship came to represent over time.) Here I refer to

stewardship as the desire to be a guardian of the landscape, especially its natural values (Cocklin & Dibden, 2006; Gill et al., 2010). Stewardship is a particularly useful concept here as it encapsulates the sense of responsibility to care for or restore a landscape for wider benefits beyond personal fulfillment (Lane & Watson, 2012).

However, the desire to look after ‘my patch’ (Tina) indicated a strong personal dimension to the aspirations landholders had for property, revealing stewardship to be both an individual and social good pursuit. Eight participants spoke of ‘bringing back’ ecologies through restoration as a strong motive for immigration. References to past ecologies through phrases like ‘bringing back’, or ‘what belongs’ (Jim, Emma) showed how landscape legacies were being consciously drawn on as part of stewardship aspirations. Tellingly, however, stewardship was framed as an activity conducted within the bounds of private property. Observation of amenity landholders practicing conservation as both an individualistic and altruistic activity are not new (Urquhart & Courtney, 2011). Nevertheless, as I outline in Chapter 6, the tensions between these two aspects of stewardship can prove decisive in shaping the ecologies of rural-amenity landscapes.

The amenity values associated with stewardship were reinforced through landholders who spoke of the aesthetic benefits of conserving or restoring bushland. As noted in Chapter 2, this aligns with a well-established observation in rural-amenity research that landholders’ appreciation of nature is grounded in a visual appreciation for the landscape rather than an ecological appreciation (Knoot et al., 2010). This raises the potential for a clash between amenity aspirations for nature and the pursuit of management practice for altruistic purposes.

In social good terms, the need to be a steward was seen to exist because of an over-exploitation of the land by the previous generation of farmers. As Alan noted, ‘people spent decades clearing the land here and we’ll spend decades revegetating it’. Alan was an especially significant statement from Alan as he still

made part of his living from beef cattle. While rarely seeking to demonise farmers, participants felt 'lucky' (Ken) that they didn't have to 'push the land' (Lauren) in order to make a living from it. In this sense, the freedom associated with non-productive land use meant participants often positioned themselves as agents of landscape change. However, the desire to steward the landscape and bring back nature was largely expressed as a desire to steward *my* landscape.

Summary

In defining four key amenity values possessed by participants, I identified the core 'lifestyle' aspirations of in-migrants. When taken together, these values reveal a strong property-centric interest in conservation framed in personal or individualistic terms. In other words, landholders aspire to focus on the 'owned amenity' space, and to do so with minimal interference from neighbours. I continue to draw out the notion of individualised on-property management aspirations in the following section.

In clarifying these four key amenity values, the grounds for potential conflict between different aspirations are also evident. The need for compromise or prioritisation in circumstances where bringing back ecologies and reducing fire risk are both desired, for example, highlights the challenge of navigating conflicting values. Participants like Alice felt they had yet to reach a suitable compromise with this issue; 'how much will you cut down, how much will you leave?' Two wildfires close to her property in the last five years had made Alice consider clearing additional vegetation. While such conflicts are not the focus of this chapter, I raise the point for reference in the next chapter, where I show how conflict between amenity values and stewardship produce unique ecological outcomes.

Knowledge generation channelled by amenity values

This section aims to demonstrate the implicit connection between amenity values and the manner in which land management knowledge is generated. The

key point of interest will be exploring the nexus of amenity values, experiential learning and social learning in generating management knowledge.

Experiential learning

The pursuit of amenity values – particularly seclusion and bringing back nature – proved crucial in understanding how participants learned about land management. These values were often closely correlated, as planting vegetation was a common means of achieving both objectives. Indeed, as noted earlier, the desire to increase property seclusion motivated five landholders' first attempts at planting vegetation. These plantings were aimed at screening out neighbours' sheds, houses, fence lines or other infrastructure, to solidify a sense of privacy. Landholders were keen to realise these aspirations upon in-migration, so planting was conducted soon after arrival. Most of these early attempts at planting did not go as planned, with some participants citing notable failures:

We tried to plant just a screening plantation [of mixed native and exotic species] between our property and the next property. But what we've found is planting trees out here doesn't really work. I think the native trees seem to be strong enough and the others just don't survive... What is here is basically what it has regenerated to. (Hannah)

Despite Hannah's planting being initiated by amenity motives, her remarks reveal how these plantings were a type of initiation for learning about ecosystem function. The death of the non-native ornamental trees had informed a view that only native species were 'strong enough' to survive in this landscape. The natural regeneration of native species occurring in parallel with the death of the plantings reinforced the view that only native species belonged. Emma and Sally had an almost identical experience, with an early struggle to grow trees for amenity reasons translating to belief that what 'was there before' (Emma) was the type of nature that should be encouraged.

Management knowledge was generated in similar ways for participants who possessed strong amenity aspirations for living in the bush. This included landholders who purchased property with existing vegetation, and those who sought to bring back nature to their new living space:

We bought our 30 acres and once we legally owned it we... just started planting trees here, there and everywhere... None of those trees survived, not one of them... (Tina)

Starting with little knowledge of revegetation techniques meant that Tina's early experience of failure was a powerful learning experience. Having come to the property with strong motives for planting native species, given an almost complete absence of natives locally, Tina simply assumed native species would prosper once planted. However, most of her early plantings were eaten by rabbits and kangaroos, or were mown over accidentally. Unlike in Hannah's case no natural regeneration was occurring on Tina's property, which had a long history of grazing. As such, Tina reconsidered her planting strategy and decided to plant the trees closer together, allowing her to 'fence [them] off' from grazing animals. Ultimately this was a successful strategy, resulting in a high survival rate of species planted. Planting small, consolidated patches and fencing them off is the advice that Tina now gives to the members of the local conservation group to which she belongs.

Purchasing a property that had existing remnant vegetation was important to William, as he wanted to immerse himself in a place 'that was my patch'. While he enjoyed spending time in national parks, William sought a lifestyle of living and working 'amongst' the bush. While having an existing interest in birds and nature in general, William felt he 'gradually learned quite a lot about the Australian landscape through getting away from the suburbs and coming to a place from scratch.' As is becoming evident in the accounts of emerging experiential knowledge, starting from 'scratch' in terms of ecological knowledge means experiences of nature 'on-property' can rapidly generate a new perspective on how the landscape functions.

As noted in Chapter 1, William's patch of remnant vegetation has changed significantly over the years through the invasion of exotic weeds. William battled to restore the native species that originally attracted him to the property, with little success. Observing birds nesting in invasive species on his property led William to consider whether attempts at species purification (removing all exotic species) (Head & Muir, 2006) was in the interests of local fauna. In expressing that 'you can be too avid a conservationist' by wanting only native species, William showed that he recognised the potential for exotic species to contribute to ecological function (Hobbs, Higgs, & Harris, 2009).

William's experiential learning took longer to emerge and departed notably from the earlier examples of knowledge generation. Emma and Hannah's experiences shaped stronger beliefs that native flora belonged in the landscape, and non-natives were not suited. The proliferation of native flora in contrast to the death of non-native flora captured the power of nature's agency in shaping the direction of management over time (Hinchliffe, 2009; Law and Mol, 2008). The agency of plants in terms of their spread and growth was pivotal on William's property too, but with very different implications. In coming to realise he lived in a 'modified' landscape through the spread of weed species, William's management ideas became more open to non-native species. What is common across these shifting management regimes is the role of the physical landscape in propagating both landholder knowledge and unique management trajectory (Law and Mol, 2008).

Rob was another who purchased property because it afforded him the opportunity to live amongst the bush. Initially, Rob was confident the bushland on his property would remain a stable aesthetic backdrop to the hobby farming aspirations he had for the cleared part of his land. His intention was to keep these paddocks unencumbered by native vegetation, retaining the ordered rural aesthetic of fence lines and pasture. Yet, within the first few years of ownership, his views on the bush had changed:

We got an infestation of Black Wattle [in the paddocks] and they caused all sorts of trouble now that they're mature trees – fall and dropping, falling on our tank, across the road at inappropriate times and stuff like that. So even when you're here you've still got to husband the land, even though it's supposed to be all “oh, don't touch it” ... These bloody black wattles, they are a nuisance.

It was clear that Rob had underestimated the effort needed to keep the space livable, and thus to maintain the amenity values he was buying into. Rob's view that black wattle's – a native species – were a 'nuisance', tied in to a common theme amongst amenity migrants: native species were a 'pest' (Steve) when their growth or spread interfered with other amenity aspirations. The short lived and pioneering character of black wattles means branches fall regularly, and the landscape soon becomes dotted with dead trees. Despite knowing the species was native and they 'deserved to be there', Rob's negative personal experience of them prevailed, and he soon adopted a maintenance regime of wattle removal around his house and sheds. Thus, while Rob felt 'we wouldn't be here if [the bush] wasn't', this perspective only applied to bushland that did not conflict with his neat and tidy domestic space.

Summary

The pattern that has emerged here is the close association of management knowledge and ideas about ecosystem function with the pursuit of amenity values. What is particularly revealing in these examples is how the knowledge gained through experiential learning could challenge the amenity values informing that learning. In other words, a desire to plant vegetation to increase seclusion resulted in five landholders questioning whether planting was an appropriate activity. This showed how observing and interpreting the landscape in which one resides can be a powerful generator of knowledge (Berkes and Turner, 2006). Experiential learning is picked up again later in the chapter, following the discussion on social learning in producing management knowledge

The response of the physical landscape – especially the behaviour of plants – filled a vacuum of knowledge about how ecosystems function and should be managed. What has been shown here is how the responses of the landscape triggering this learning is often the result of an amenity-inspired pursuit. This includes planting trees to increase property seclusion, ownership of a personal patch of nature and establishing ornamental nature to increase familiarity with the landscape.

Social learning

The phenomenon of learning about land management and ecologies through relationships with other social actors has been well established in productive rural contexts (Sattler & Nagel, 2010; Tarnoczi & Berkes, 2009). The exchange of ideas and observations ‘across the fence’ with a neighbour engaged in the same productive land use is very much part of the farming or ranching identity (Williams, 2004). As I discussed in Chapter 2, these traditional means of communication and knowledge exchange have been ruptured in many instances, through the diversification of land uses and aspirations associated with rural in-migration (Klepeis et al., 2009; Larsen et al., 2011; Yung & Belsky, 2007). Despite the apparent loss of social capital and declining cross-boundary cooperation that has accompanied rural land use transitions, there has been some optimism that social interaction and sense of place can emerge quickly amongst fellow in-migrants, often through shared conservation concerns (Larsen et al., 2007).

Here I seek to contribute to understandings of social interaction as an influence on management practice by exploring the proximal dimension permeating the learning communities to which landholders belong. This is not to dismiss the range of social interactions that proved to have some influence on landholder practice – online resources, leaflets from local councils and familial knowledge sharing among them. However, a striking theme that informs a key debate in this research field is the type of knowledge that *was* and *was not* shared between neighbours (Abrams et al., 2012; Larsen et al., 2011). As such, this section looks to contrast communities of proximity and communities of practice in generating management knowledge, drawing on the role of amenity values in directing

these learning encounters. For the sake of clarity, the role of extension staff associated with voluntary conservation schemes in informing management will not be discussed as part of the communities of practice section, but separately in Chapter 7.

Before beginning this section, it is worth reflecting on the definition of a 'neighbour'. Neighbour status was a fluid concept for participants, who did not always restrict this term to properties sharing a common boundary. People who lived 'in the road' (Sam) were often considered to be neighbours, as well as properties in easy walking distance with whom a noteworthy – good or bad – relationship existed. Thus, 'communities of proximity' describes local interactions at a 'neighbourhood' scale that encompasses the ideas of a neighbour presented above.

Communities of proximity

The differing land management aspirations that characterises rural-amenity landscapes led to a general impression amongst participants that they did not stand to learn much about management from their neighbours. In the case of three landholders, their neighbours had raised direct concerns with them regarding revegetation along a common boundary, resulting in a tense relationship.

Indeed, stories of confrontation with neighbours over management issues came very easily to participants, suggesting a sometimes-hostile environment for knowledge exchange. These participants were quite explicit in their belief that they were 'going it alone' (Lauren) in terms of management, and there were few property owners nearby from whom they could learn. Lauren summarised this view by suggesting she and her husband 'haven't helped anyone and no one's helped us'. Tina also felt her farming neighbours had deliberately 'kept out' of her business, offering little advice on planting vegetation because they did not share her land use objectives. However, Tina's story soon began to expose the capacity for small, often unobtrusive learning opportunities with such

neighbours. Tina captured this complex dynamic when reflecting on how she and her husband had painstakingly built a fence by installing the fence posts in sequential order:

We'd be trying to line it up and we did a whole fence like that, then a local farmer told us you put in your two end posts and you string a line... sometimes the locals would help us. (Tina)

Exchange of ideas, both directly and in more diffuse ways, did appear to be occurring. Learning about fencing from a local farmer typified the type of exchange that occurred between neighbours who had differing land use priorities. Established farmers possess knowledge of working rural landscapes that are transferable to newcomers no matter what land use objectives they pursue. Thus, while Tina didn't learn about planting indigenous species from her neighbour, the fencing lesson helped to further their efforts to protect their restoration works.

The selective nature of knowledge exchange was reflected further in Jeff and Claire's experience with a neighbour, who was amenable only to ideas that correlated with existing land use priorities:

All the land... down the left hand side belongs to... a very farming focus[ed] [family] and conservation comes a very – they don't do anything. No spraying of gorse on the property... Jeff has a good relationship with [them] about feral animals and dogs and stuff like that, but if I start talking about spraying their gorse out which is close [to] the roadside it just goes... it just doesn't happen. (Jeff and Claire)

While Jeff and Claire's efforts to encourage their neighbour to spray their gorse had been largely unsuccessful, the neighbour was receptive to dealing with foxes and rabbits. Information about pest fauna was something landholders readily took on board when advised by a neighbour. The mobility and rapid reproduction of foxes and rabbits appeared to make it easy to conceive of

treating pest fauna as a shared responsibility. Moreover, dealing with foxes was an issue for almost all landholders, whether they were trying to create habitat for native species, graze sheep or keep chickens.

The idea that pest flora and fauna management challenges could be easily communicated was supported by two of the farmers interviewed. Trevor and Dan were keen to educate recent in-migrants on weed species and the impact they might have on agricultural productivity in the region. Dan felt many new landholders were more interested in the 'warm and fuzzy' side of rural land ownership (tree planting and sitting on their veranda), but needed to be made aware of the things that 'have got to be done' when you live on rural land:

They don't understand that when you've got the land there's things that have got to be done... you've got things like fences, you've got weeds and you've got feral animals and things like that... they don't even realise there's a problem in a lot of cases... (Dan)

Another element of management practice that appeared to gain widespread acceptance as a neighbourhood responsibility was fuel reduction for bushfire. Sally, along with other property owners in a small cul-de-sac, had established a kind of neighbour norm of ongoing maintenance. Sally felt that if everyone reduced the fuel load on their own property, it would reduce the collective risk to all:

It's sort of like we've all fallen into the same sort of habits and routines. You just burn off; you pick up all the stuff... we work pretty well together.

While conflict over differing land use priorities is understood in the literature on amenity landscapes (Mendham & Curtis, 2010; Yung & Belsky, 2007), the contexts in which people learn socially and exchange knowledge provide for interesting insights. Among the participants here, the dominant social interactions around land management at the neighbourhood level related to general issues associated with being a responsible landholder in a rural

community: that is, landholders shared concern for that issue across a diversity of land use aspirations. Only three participants noted learning about management or ecosystems through neighbourhood interaction. The role that amenity values play in this dynamic will be unpacked after the communities of practice section.

Communities of practice

The role of communities of practice was particularly evident for landholders who felt few other locals were interested in conservation or restoration. Such a perception was a catalyst for looking beyond that neighbourhood for like-minded people. Karen planted the black sheoaks (*Allocasurina littoralis*) in Figure 5 after asking a member of a local community conservation group for advice on appropriate species. She was swayed to plant the sheoaks along her driveway after learning that virtually no remnant examples of the species were left in the region. Karen derived comfort from knowing there was a ‘very strong’ conservation community in the area that she could tap into. This stood in stark contrast to a description of one of her neighbours as ‘totally opposed to what I’m doing’, and another who thought ‘trees were (only good) for... firewood’.



Figure 5. Karen planted black sheoaks (*Allocasurina littoralis*) along her driveway on the advice of a local Friends Group (community-based environment group) member whom she respected as having strong natural history knowledge.

Several participants noted that they had developed relationships with local native plant nurseries. This was especially true for people like Maddy and Tina, whose properties had no remnant vegetation when they arrived (Figure 5.1). While ambitions were lofty – as already discussed in Tina’s case – both landholders were reliant on nurseries for determining appropriate species, numbers of plants required and the ratio of species from different strata (proportion of canopy trees to understorey species). Some participants returned to the same nursery for additional plants annually, often with questions regarding the progress of last season’s plantings; this showed the potential for ongoing sporadic relationships in building knowledge (Moore & Westley, 2011).



Figure 5.1. Maddy's first revegetation effort saw an over-abundance of canopy eucalypts planted, based on advice received from a local nursery.

Upon arriving at Maddy's place I thought the planting in Figure 5.1 resembled a timber plantation rather than a patch of bushland – very different to the image Maddy gave me over the phone prior to my visit. However, it soon became clear that her desire to recreate bushland had been a complicated process:

I looked through all the historic stuff trying to find good photos of what was here but there are very few and [I] just wanted to recreate some sort of habitat. (Maddy)

Maddy's intention was a planting for habitat purposes, but as she conceded, her first attempt was very much 'an experiment'. Difficulty locating information about the pre-settlement landscape meant the local native nursery manager was a key source of advice and not just a source of plants. He provided a palette of species that included a large quantity of eucalypts. Within a few years, the canopy species had shaded out many of the understory species. Upon reflecting on the planting, she decided to try a different supplier. The subsequent planting

was more diverse in terms of understory species, and the sparser canopy had allowed them to survive in greater number. Maddy had since returned to the new nursery on several occasions.

Interestingly, Maddy also spoke at length about how helpful her farming neighbours had been since she moved to the property, giving advice on fencing and looking after her small cattle herd. Nonetheless, only one mention was made of a farmer in the neighbourhood who had given advice about revegetating steep slopes; this was despite many local farmers pursuing their own revegetation projects over a long period of time. While her neighbours had happily assisted her in the physical task of planting vegetation on her property, conversations about revegetation appeared to happen outside the neighbourhood.

A telling characteristic of the communities of practice was the peripheral participation of landholders in those communities. Social learning theory suggests people will move beyond peripheral engagement over time, towards more comprehensive involvement (Wenger, 1998); however, few landholders had made this transition. Maddy (above) was one of only three participants (Steve, Liz) who appeared to move beyond peripheral participation and become a source of learning for others. Maddy had become a resource for planting advice for a handful of local people, opening up her property to interested visitors. The majority of amenity migrants dipped in and out of existing communities of practice as needs arose, rarely becoming active contributors to those communities. Despite this, knowing that such communities existed – that help was there if they needed it – was a comfort to many participants.

Amenity values shaping proximal knowledge communities

Understanding how the proximal dynamics of learning through social interaction emerged required me to reflect on Sally's comment at the beginning of this chapter: 'having good neighbours makes it easier to come home'. As was established, having neighbours that kept to themselves helped to achieve or maintain the secluded aspect of private rural property. The desirability of peace

and quiet as an amenity value helps to explain the limited exchange of conservation management knowledge at the neighbourhood scale.

It became apparent as the interviews progressed that participants would look the other way or deliberately avoid confrontations when it came to concerns they had about neighbours' land management practices. Lauren admitted that she avoided confrontation when told by a neighbour on her western boundary that the goats of another neighbour had got into her bushland. Her assertion that she often did 'anything to keep the peace' when problems were encountered with neighbours was quite revealing. It seemed a desire to keep the peace and enjoy good neighbourly relations was stopping some neighbours from broaching management topics with their neighbour. This partly explains why landholders were more likely to look outside their neighbourhood to learn about their patch of bushland – appearing 'too green' (Steve) to neighbours could threaten amenity if their neighbours were not receptive to conservation ideas. As I will touch on later in Chapter 7, this attitude was also a factor in some landholders concealing their participation in conservation schemes from their neighbours.

As previously discussed, sharing non-threatening practices like fencing techniques or pest management is more common as it is safe territory for maintaining good neighbourly relations. The benefits of addressing such issues are also shared across landholders with a diversity of aspirations. However, as Karen experienced (in an example above), sharing conservation or restoration ideas may rouse conflict with neighbours who share very different land use objectives.

The potential impact of poor neighbourly relations on lifestyle pursuits should not be underestimated, as seen in the case of people who had actually encountered conflict. As we reviewed an aerial photo of their local area, Jim and Beatrice pointed out neighbours who they believed had 'no idea' (Jim) about land management. Jim and Beatrice had broached discussions with neighbours about the declining local presence of koalas and experiences attempting to plant native vegetation, but few were interested in such topics. Indeed, one neighbour had

removed a patch of vegetation along a shared boundary, inciting an argument over appropriate land use. Jim and Beatrice relied more on the 'bits and pieces' of information they picked up from Landcare newsletters and other external sources to complement their experiential learning.

Some participants felt their neighbours did not possess the knowledge they sought in undertaking their management. As noted in Maddy and Tina's stories, their intention to bring back ecologies of the past as both an amenity and altruistic conservation pursuit was viewed as vastly different to the farming interests of their neighbours. The knowledge of local conservation groups, nurseries and even local government helped to facilitate access to the ecological legacies of their local landscape.

While many landholders expressed views on how their neighbours could improve their land management in any number of ways, few had ever aired those views. The notion that property rights entitle people to do what they want with their land, and that outsiders have little right to interfere, is common in rural-amenity landscapes (Fischer & Bliss, 2008). What is evident here is how such perspectives encourage looking beyond the neighbourhood for knowledge. There are parallels here to Larsen and Hutton's (2011, p661) finding that social interactions around land use in amenity regions was often based on 'need, not proximity'. I have suggested here that proximal 'neighbourhood' encounters are being inhibited by a strong desire to realise the amenity values landholders seek through in-migration.

The interplay of social and experiential learning

In this section I show how experiential and social learning encounters intersect in the production of landholder management knowledge. The form and nature of the interrelationship between these learning modes is assessed, addressing how some kinds of knowledge are prioritised over others. Here I pick up the framing of knowledge development described in Chapter 3 to show how people learn

from their environment and through social interaction around that environment (Jacobson, 1996; Muro & Jeffrey, 2008).

Claire and Jeff's struggle to remove pasture grass and gorse only for them to be replaced by other weed species typified the interplay between experiential and social learning. The removal of sweet vernal grass (*Anthoxanthum odoratum*) by hand had resulted in bare ground, promoting erosion and re-infestation. 'Dead-heading' (removing the flower before it goes to seed) was then attempted, retaining the root mass of the plant to reduce erosion. However, as the soil already contained significant stores of seed from previous years, the grass flourished rapidly when the drought broke in 2010. Claire said she had done 'a whole area of dead heading last year down on the creek and it is back exactly as it was', resulting in a recognition that 'we are going to have to seek advice' to treat this weed. Claire's initial management efforts were based largely on her gardening background.

A process similar to that described above occurred with respect to the exotic gladiola species that had begun to occupy Jeff's creek banks from which the gorse had been removed. Jeff noted 'if you pull it out, you leave all the (bulbs) behind', meaning it will simply reestablish anyway. Given they had 'no idea how to control it' (Claire), advice had been sought from an amateur botanist friend. Alex and Simone shared a similar story in which concerns over the rapid spread of sweet pittosporum (*Pittosporum undulatum*) into their bushland had triggered engagement with external knowledge. Having received conflicting advice from the local council and workmates as to whether this native species was an environmental weed, they ultimately decided its rapid spread was indicative of a species that did not belong.

The two examples above capture the essence of the dynamic between social learning and experiential learning. Management knowledge evolved primarily through a process of acting on the landscape, and then observing and interpreting how the landscape acted back. Knowledge derived through social learning was frequently initiated by, or tested against, this experiential learning.

In this sense, the situated interrelationship between people and nature ‘on-property’ is a key generator of management knowledge for amenity in-migrants. This also helps to explain why few of the participants had become active participants in the communities of practice that surrounded their management. Rather, they dipped in and out of those existing communities as questions arose through their situated experience.

In the final section of this chapter I look to uncover how the interplay of social and experiential knowledge has evolved over time into routinised dispositions of stewardship.

The emergence of stewardship dispositions

The generation of management knowledge reveals an evolving interplay between people and their environment. My task in this section is to show how this interplay settles over time into distinct dispositions for management. Through dwelling in the property space, management knowledge has come to reflect the ‘experience of conducting one’s life in a particular environment’ Ingold (2000, p25). The amenity values of in-migrants mean the property space is at the heart of this ‘particular environment’. Here I explore how knowledge derived about one’s ‘patch’ translates into discrete stewardship dispositions. While I introduced stewardship as an amenity aspiration above, I now deal with what stewardship comes to represent as it plays out over time. The term ‘stewardship disposition’ describes a prevailing mindset that informs how landholders seek to manage the ecologies on their land.

I adopt the notion of ‘disposition’ due to its past application in both agency/structure debates (see Bourdieu and Wacquant (1992) on habitus, for example) and in environmental management (Burton, 2012; Cammack, Convery, & Prince, 2011; Nordlund & Garvill, 2002). In this light, dispositions have been depicted as a tendency to respond to one’s environment in ways that reflect an ongoing association with that environment. This tendency links the emergence of

dispositions to the experience of *dwelling* in a place over time (McFarlane, 2011a).

In borrowing from the elicitation of dispositions through habitus (Bourdieu and Wacquant, 1992), I wish to show how they are ‘durable yet changeable’ tendencies towards management (Kasper, 2009, p316). This allows room for shifting dispositions over time in response to trigger events or specific crises (wildfire, flood, weed invasion), while still retaining the notion of a structuring role for management (Burton, 2012).

The two dispositions possessed by participants that solidified over time were ‘passive’ and ‘active’ stewardship. A passive disposition is one that dictates a hands-off approach to management, while an active disposition shapes an active, interventionist approach to management. It is worth noting that the idea of passive and active ‘management’ has been raised in the literature on the ecological implications of rural-amenity migration (Abrams et al., 2012; Erickson, 2002; Gill et al., 2010). Passive approaches to land management practice have been largely seen in a negative light, given the potential for landholders to overlook important tasks.

Framed as a type of ‘benign neglect’, passive management can result in failure to treat exotic weed species that may threaten ecosystems or agricultural production. These may be the unintended consequences of amenity in-migrants who want to ‘let... nature take its course’ by letting deforested areas regenerate (Erickson 2002, p107). This framing of passive management contrasts with the active dispositions of farming communities, who appear more likely to practice an active stewardship of the land (Trigger et al., 2010). While associated with agricultural use, this form of stewardship is framed as more attentive to issues of weeds and pests and working collectively across property boundaries (Yung & Belsky, 2007).

The objective here is not to judge the suitability of one approach over the other – though I do wish to emphasize that passive is not always bad, and active is not

always good – but to connect the development of these dispositions to amenity-directed knowledge generation; that is, to show *how* dispositions are formed, not just to identify their existence. In this sense, stewardship is depicted as being ‘built around everyday working life’ (Trigger et al., 2010, p1069). This notion of ‘building’ stewardship is critical for reflecting the temporal dimension of the emergence of dispositions.

Passive stewardship dispositions

Emma’s passive disposition characterised one of the more common connections between amenity-generated knowledge and stewardship. Just like the other landholders mentioned earlier in this chapter, formative experiential learning through failure to establish ornamental trees had become an entrenched passive disposition:

What I did try to do and it wasn’t successful, plant some deciduous trees... I planted two oak trees down there... it’d be almost 20 years ago and they’re no higher than about [one metre tall]. And then two Japanese maples I think. They just don’t grow... so I gave up on that idea. So I don’t plant any other trees and I haven’t planted trees for years and years now. You know, [the naturally regenerating species] can grow up by themselves, they’re managing all right. (Emma)

Emma attributed her struggle to grow introduced species to poor soil and inconsistent rainfall, something to which she perceived the indigenous species were adapted. Thus, as Figure 5.2 shows, Emma’s ornamental trees remained stunted, while bushland rapidly regenerated all around them, from a persisting seed source in the soil. Observing this heavily contrasting difference between the fortunes of indigenous vegetation compared to ornamental trees was a catalyst for coming to understand which species were suited to her property.



Figure 5.2. The contrast between the stunted growth of this Japanese maple (foreground) planted by Emma, in contrast to the flourishing regeneration of surrounding bushland, helped to cement a passive stewardship disposition over time.

As such, the bushland regenerating on Emma's subdivided former pine plantation (just like the bushland on Hannah's property in an earlier example) was seen as 'belonging' to that landscape. Emma had 'no (future) plans for doing anything 'cause it's all doing it itself'.

What is particularly interesting here is how Emma's passive stewardship disposition persisted despite the active management she had conducted to facilitate bushland regeneration. The continual re-shooting of pines from the former plantation meant Emma had removed hundreds of small pines, to stop them blocking out the native species, as they had done on her neighbours'

properties. Without this intervention, there would have been limited opportunity for the native trees to 'grow up by themselves'.

Liz's passive management philosophy was subtly different; just before she went to clear some regrowth scrub which she thought was inhibiting the establishment of a more diverse vegetation community, she was advised by her father to let it grow. As the scrub slowly began to diversify in terms of species types, it solidified a notion in Liz's mind that it was best to let the landscape speak for itself, and tinker around the edges when the occasional noxious weed popped up. Liz was particularly critical of what she saw as the obsession with 'speeding up' regeneration processes through active management:

I find it incredibly arrogant when so called ecologists walk onto a property and they say this [vegetation community] should be such and such. How the hell would they know? My father could tell them what [the vegetation in this area] was like 40 years before my memory, but I don't know what it *should* be like. I have no bloody idea what it *should* be like (Liz – her emphasis)

As we walked her property together, Liz practiced the subtle tinkering she spoke of and encouraged me to do the same. This involved pulling occasional weeds that were gaining a foothold in a particular spot, mostly in areas of disturbance where trees had fallen or shrubs had died back. Sporadic weeds amongst denser native undergrowth were considered unlikely to become established, and creating a new disturbance by pulling those weeds was not desirable. This belief shared parallels with Nick's experience (related at the beginning of Chapter 1 of my thesis) of pulling one weed out, only for it to be replaced by a more virulent one.

The passive dispositions that emerged from my encounters with participants reflected a view that management was about working with rather than against the landscape. In this sense, human agency was being ceded to the bush as landholders downplayed their capacity to influence the composition of bushland

landscapes. Lauren said ‘the bush is just like that’, implying that it is difficult to work against the agency of nature when attempting to manage the landscape. This comment was made as we discussed the spread of bracken fern into an area of paddock that Lauren wanted to keep open for occasional cattle grazing. Ceding agency in this way had a strong temporal dimension, as the experience of gradual bushland regeneration only reinforced that the landscape had a ‘natural’ state that should be encouraged. The gradual emergence of this natural state seemed to solidify passive dispositions, even when occasional active tasks were required to achieve it.

Passive interpretation of ecosystem change

Evidence of participants’ durable dispositions was also evident in the case of rapid ecosystem change, especially in response to events like storms, floods or drought. Alex and Simone’s patch was a remnant lowland forest vegetation community, containing several species susceptible to climatic variation. Nevertheless, the loss of middle-storey species during the drought was not a worry for Alex and Simone as they had already observed change to the ecology on their property, viewing this event as another example of the bush as a constant ‘moving picture’ (Simone). Experiencing seasonal fluctuations of flowering and vegetation growth, when ‘things will have changed’ (Simone) weekly was celebrated as one of great things about owning bushland.

Recent rain had triggered strong growth of sweet bursaria (*Bursaria spinosa*) at a spot where a stand of swamp paperbark (*Melaleuca ericifolia*) had died off in the drought (Figure 5.3). Despite not knowing the newly colonising species by name, Alex pointed to this as an example of how the bush looks after itself. It also reinforced a notion of boom and bust in the Australian bush, where flora and fauna make the most of good conditions for reproduction and growth, as the sweet bursaria had done. Experiencing this recent boom appeared to confirm participants’ belief that their only task should be treating the occasional noxious weed, to limit the influence of invasive species on the natural cycles of the bush.



Figure 5.3. Sweet bursaria (*Bursaria spinosa*) has quickly established in a patch that was thick with Swamp paperbark (*Melaleuca ericifolia*) only a few years earlier. This change was embraced as a sign of natural ecosystem change.

Interestingly, similar experiences in the property space over time had brought other landholders to the opposite view of how their land should be managed; these are discussed below.

Active stewardship dispositions

Active stewardship dispositions were founded on the view that restoring or conserving ecologies requires intervention. In the late 1990s Trevor received a small grant from his local Landcare group to fence-off a corner of his paddock containing large remnant yellow gums (*Eucalyptus leucoxylon*) (Figure 5.4). While Trevor was hesitant about taking this section out of grazing use, he considered it a low-yield area, so agreed to participate. In the years following,

virtually no yellow gums self-seeded, and the fenced area became choked with pasture grass (*Phalaris aquatica*). Trevor expressed disappointment at the lack of regeneration, but felt it was a 'good lesson' that you cannot simply 'lock land up' and expect vegetation to come back. His observations here paralleled those of other landholders like Rob, whose struggle with black wattles resulted in a view that you have to 'husband the land' actively, and not simply leave it be.

As the years passed without evidence of the anticipated regeneration, and Trevor's belief in the virtues of active management grew, he decided to plant out part of the patch with non-indigenous sugar gums (*Eucalyptus cladoclyx* var. *nana*) (seen in the background of Figure 5.4). Sugar gums are now seldom used for revegetation projects, but had been a favoured species for farmers in western Victoria for many decades as windbreaks and a source of timber for fence posts (Costermans, 1983). Most land management institutions recommend revegetating such patches with indigenous eucalypt species rather than sugar gums as they have little habitat value. Trevor was well aware of this point, being a long-term active Landcare member. Yet, some healthy looking sugar gums stood large in the gardens around his house, having been planted in the time before he purchased his farm. The persistence of those sugar gums through harsh and varying climatic conditions in Trevor's own back yard, proved a greater influence on his practices than the views of his local Landcare group. Of interest here is that Trevor's practice was based partly on his dwelt experiences, but also on the dwelling of a past generation of property managers. Planted vegetation proved a more distinctive embodiment of past active practice than vegetation that regenerates from indigenous seed source.



Figure 5.4. The absence of yellow gum (*Eucalyptus leucoxylon*) regeneration in this patch fenced-off from the paddock founded Trevor's belief in the need for active management. Sugar gums (*Eucalyptus cladoclyx* var. *nana*) can be seen in the background (rear centre and rear).

Having observed the legacy of past management practice embodied in the landscape, Trevor formed the view that sugar gums had a legitimate place in the landscape. Trees planted by a previous generation have been shown to be a powerful link across generations of landholders as symbols of resilience and continuity (Beilin, 2007). Trevor's active re-planting of a persisting species in a new setting is producing a landscape outcome that is both changing (new planting arrangement) but also continuous (same species).

In contrast to the trial-and-error knowledge development that informed passive dispositions, notable examples emerged of landholders who used these experiences to refine their active interventions. Jeff and Claire's desire to actively revegetate sections of paddock and along a creek line running through their land showed them the fragility of the soils on their property:

Disturbance of these soils as we have discovered to our [detriment]... is just not the way to go. Just any sort of disturbance you get an outcome further down the hill. (Jeff)

For Jeff and Claire, the removal of significant infestations of gorse (*Ulex europaeus*) had necessitated planting to stabilise creek banks and limit re-infestation. So rather than leading to a wholly passive mindset, their triggering of some minor erosion through earthworks further uphill had instead resulted in a more methodical approach to active management. Jeff succinctly described this as ‘making haste slowly’. Rather than committing themselves to large projects, such as gorse removal along their whole section of the creek, smaller sections were targeted and then progress was reviewed – a process described by Claire as ‘do a bit and see what happens’. These early interactions had resulted in an understanding that well-intentioned tasks such as weed removal can result in detrimental outcomes elsewhere on the property. In Jeff and Claire’s case, their learning experience led to a nuanced active disposition that meant they had tempered the pace of their active management over time.

Active interpretation of ecosystem change

Landholders who were anxious about observed changes to their bushland patch showed a greater willingness to be active managers. The active management practices of Alice and Sam were largely influenced by their own experience of change to the vegetation community on their property. Having come from a suburban residence (‘growing up thinking there was only one wattle species (Sam)’) to living in a largely intact remnant box-gum woodland, had been quite a transition. *Wildflowers of the Brisbane Ranges* (Trigg and Trigg, 2000) had proved invaluable for identifying some of the species on their property, but subtle variations in colour or growth habit proved challenging. Sam and Alice’s response to rapid changes to their property landscape revealed the prioritisation of personal observation in shaping their active disposition:

Alice: And there was another [plant we manage], an appleberry. It’s supposed to be native. I’m not sure if it’s indigenous to this area, because

we've got a *Flora of the Brisbane Ranges* little reference book and there is an appleberry in there, but we're not sure if it's the same one, are we?

Sam: The blue one – yeah, we've got a blue one down there. There's blue and pink.

Alice: Yeah, we're not sure if it's the same variety. So we've got all these appleberry bushes springing up too.

Sam: And if they just pop up we just pull them out.

Alice: Yeah.

Sam: We've...got some down here [points] where the birds are but we just don't worry about those. But if they pop up somewhere else, we just take them out because otherwise they'd take over.

Alice and Sam had come to appreciate a specific bushland aesthetic on their property, borne out of direct interaction over the duration of their tenure. Perhaps as a result of drought-breaking rains at the beginning of 2010, change was occurring to the bush on their property at a rate previously unseen. Pioneer species were flourishing and colonising – especially in the understorey – causing a noticeable disruption to the static landscape aesthetic of the last decade. Alice and Sam's actions in removing some of these shrubs when they 'pop up' reveals a desire to preserve the aesthetic they were accustomed to through the prior decade of drought. Sam's statement that they would not remove the shrub from the only site in which it was growing prior to its spread ('we don't worry about those') reinforced this notion.

A notion of aesthetic balance means species that break the balance are treated with suspicion. As with the appleberry shrub noted above, golden wattles (*Acacia pycnantha*) have recruited rapidly, leading Sam to perceive the species as not indigenous to the area and spreading like a weed (Figure 5.5). The site in

Figure 5.5 was previously disturbed through sporadic vegetation removal for fire prevention purposes, making it an ideal site for early colonising species like acacias.



Figure 5.5. Wattle (*Acacia pycnantha*) regeneration in the understory was treated with suspicion as it disrupted existing notions of what a balanced bushland landscape should look like.

The situated experiential knowledge Sam and Alice had developed made the past property landscape the primary reference point for dealing with contemporary ecosystem change. This resulted in active management intended to preserve a steady state of flora species' numbers and distribution across the property. In achieving this, however, colonising native species were being removed.

The idea of actively managing a landscape to maintain a static ecosystem state was evident in the practices of four other landholders, with changing ecosystem dynamics viewed as needing human intervention. Many landholders were only confident identifying the most prominent weed species (gorse, blackberry, thistles, ragwort), so the behaviour of plants was frequently a proxy for 'weediness'. As such, when plants began acting in 'weedy' ways – propagating

quickly, spreading fast and ‘taking over’ – they were treated as a suspicious disruption to a balanced ecological aesthetic. Steve’s observations were of particular interest here, as he was concerned that a large swathe of recruiting blackwoods (*Acacia melanoxylon*) were ‘getting a bit weedy’ having emerged after the removal of grazing animals. Despite Steve’s knowledge that these blackwoods were an indigenous species, their rapid proliferation had led to a belief that they might need to be ‘thinned out’ to avoid blanketing other species.

Jim and Beatrice’s active approach to dealing with the dieback of swamp paperbark stood in stark contrast to Alex and Simone’s passive response to the same phenomenon above. Jim and Beatrice had seen the bush on their property become sparse with the decline of middle-storey species like swamp paper bark. In response to these changes, they have been fencing off the small surviving patches of paper bark to stop wallabies grazing on them, in the hope they would gradually regenerate. Jim noted they had been doing all they could to bring them back, but ‘mother nature has been against the tea tree’ in those efforts. This quote from Jim shows how his experience of nature seemingly in decline shaped an active disposition. While Alex and Simone had witnessed another species fill the void left by the declining swamp paperbark, Jim and Beatrice had not – this helped to explain their belief that ‘mother nature’ needed active assistance. In contrast, there was no such compulsion for Alex and Simone to intervene.

While active stewardship dispositions are a priority in sustainable management of rural-amenity landscapes, especially given the issue of exotic weed spread and impact on farmland and ecosystems (Klepeis et al., 2009), it is not an exclusively desirable disposition. I showed above how landholders can be actively working to preserve static ecosystems, removing native pioneering species in the process. Moreover, a number of passively minded landholders have allowed natural regeneration to occur, whilst also coming to recognise the value of non-native species as habitat. I will reflect further on the complexities of active and passive dispositions in the conclusion to this chapter.

Table 5 summarises the stewardship dispositions of all participants, and the key management practices that extended from those dispositions. The schemes in which landholders participate have been added to the table, to allow for future reference back to potential associations between program participation and stewardship dispositions in later chapters.

Table 5. The stewardship dispositions of research participants.

Landholders	Primary management practices	Conservation scheme
Active stewardship disposition		
Jim and Beatrice	Spot planting; weed removal (spraying and hand pull); fencing of remnant vegetation	Trust for Nature; Land for Wildlife
Steve	Revegetation; weed removal (hand and spraying)	Trust for Nature
Kelly*	Weed removal; clearance for fire protection	Trust for Nature
Trevor	Revegetation; fencing; weed spraying	Non-participant
Alex and Simone	Weed removal (spraying and hand pull); revegetation; fencing	Non-participant
Pauline and Allan	Weed control (spraying and hand pull); revegetation	Land for Wildlife
Dan	Weed control (spraying); revegetation	Land for Wildlife
Nick	Revegetation, weed control (spraying)	EcoTender
Jeff and Claire	Revegetation; weed control (spraying and hand pull); fencing of remnant vegetation	EcoTender; Trust for Nature
Tina	Revegetation; fencing; weed control (spraying)	EcoTender; Land for Wildlife
Maddy	Revegetation; fencing; weed control (spraying)	EcoTender
Ken	Weed control (burning; spraying); revegetation; erosion control	EcoTender
Karen	Revegetation; fencing; weed control (spraying)	EcoTender
Passive stewardship disposition		
Liz	Hand weeding; fencing	Trust for Nature; Land for Wildlife
Rob	Occasional hand weed removal	Trust for Nature
Emma	Weed removal (hand pull)	Non-participant
Sally	Spot planting; weed removal (spraying and hand pull)	Non-participant
Alice and Sam	Hand weed removal, clearance for fire protection	Non-participant
William	Weed removal (hand pull); spot planting	Land for Wildlife
Lauren	Weed control (spraying); revegetation	Land for Wildlife
Hannah	Weed control (hand pull)	Land for Wildlife

* As noted in Chapter 4, Kelly was a pilot interviewee for this project but selectively included in the main analysis because of his important contribution to key themes

Durable yet changeable dispositions?

It is clear from the above narratives that once formed, stewardship dispositions are likely to stand up to opposing viewpoints. Conflicting advice delivered to Trevor and Liz did not sway their approach, while Emma was not conscious of her active contributions to creating the landscape she saw as natural. As Knapp and Fernandez-Gimenez (2009, p505) identified in a farming context, once land management is framed in a particular way, additional learning is likely to reinforce this frame. However, one participant consciously reflected on a passive stewardship disposition that she had adopted with some trepidation.

Sally's management knowledge had advanced from a self-proclaimed 'low base', through observing seasonal change to flora and the habits of various fauna species on her property. Nevertheless, one of the first things Sally said to me when I arrived at her property was that she and her partner were 'conscious, not active' when it came to land management. She felt their only real activity was responding to obvious weed threats; 'treating the weeds we know'. Treating weeds consisted of spraying and hand pulling noxious species like blackberry, thistles and ragwort. What made Sally's passive approach unique was that she clearly felt she should be more of an active manager, but did not know where to start. The more she experienced the ecological processes of the bush, the more it reinforced a perception that she did not know what the 'right' way to manage bushland was:

As I said, coming into this in a very naive way, into this property... I've certainly learnt a fair bit but not enough to [be]... doing all the right things by – and I don't know what, probably, the right things are. What are the right things? Do you just leave it? And probably the right thing is probably to burn it off, potentially... (Sally)

Despite Sally's underlying desire to become a more active manager, her experiences of nature on-property had made her hesitant to do so. A handful of unsuccessful attempts to plant native species only served to reinforce her passive approach. By contrasting the struggle to grow trees with the seemingly

effortless natural regeneration happening in the nearby remnant, Sally indicated her belief that she was best to remain a ‘conscious’ distant observer:

I’ve been trying to grow more of little stands of trees and it’s really, really hard work [in the sandy soil], even for the natives in some patches down there. We’ve tried things like – not local species so much but sort of just gums, Snow gums. We had a Tasmanian blue gum down there somewhere and it never really thrived... [But] all those trees [on the edge of the bushland]... those down there all just self-seeded... (Sally)

Sally’s perspective, though unique amongst participants, echoed a phenomenon encountered in some form by all of the program staff I interviewed. Gareth in particular felt that some of the lifestyle-orientated property owners he had dealt with were hesitant to actively interact and explore their bushland:

I’ll come across landholders who are passionate about “their bushland”, but are sort of still in awe of it, and don’t really interact with it. So... they’ll walk the paths, but they’ll talk about “oh no, we don’t go in there because it’s pristine, we don’t want to touch that”... And I say, no, actually it’s OK. You can go in to there, and indeed it’s a really good thing... because you’ll see what’s going on. If there’s a threat you can deal with it... (Gareth)

What Sally and Gareth’s stories reveal is the potential for some landholders’ stewardship dispositions to be shifted by encounters with external knowledge sources. The potential for shifting dispositions is an important recognition, especially when considering the role of voluntary conservation schemes in affecting behaviour change. I will refer back to the durable and changeable nature of dispositions when exploring voluntary schemes in Chapter 7.

Conclusion

In this chapter I explored the role of amenity values in guiding knowledge generation, and how that knowledge settles into distinct stewardship

dispositions through dwelling in the property landscape over time. These dispositions structure management practice, with ongoing social and experiential learning encounters often reinforcing those dispositions.

The amenity values landholders sought through in-migration revolved around the property parcel, including the desire to spend time immersed in the property landscape and enjoy the seclusion it provided. Seclusion often translated to creating or maintaining a sense of separation with neighbours. In accommodating themselves in this landscape, participants often created a domestic space around the home, increasing the 'livability' of the property.

By viewing property ownership as an opportunity to steward the land more effectively than the farmers that came before them, the participating landholders aspired to be stewards of the landscape. However, ecological restoration and conservation was shown to be as much a personal lifestyle objective as it was a stewardship objective. In wanting to be a steward of the land, landholders inevitably look back to what 'was here' (Emma) before European settlement. This tendency showed how landscape legacy is an important dimension of amenity and stewardship aspirations; how these legacies were enacted is described in the following chapter. Drawing these amenity values together revealed land management aspirations to be framed largely in personal or individualistic terms (away from neighbours), and focused on the property parcel. This is a critical starting point for understanding how knowledge for management was generated.

The amenity values noted above were shown to be decisive in channeling participants' social and experiential knowledge generation. The centrality of property ownership as an amenity value, and to derive peace and quiet from the seclusion provided by ownership, had the effect of situating learning about management and ecosystems at the scale of the property parcel. Nevertheless, this does not always mean management knowledge reflected initial lifestyle aspirations. Indeed, in seeking to plant ornamental trees for non-conservation goals, strong ideas on ecosystem function emerged. In this way, aspirations for

amenity were mediated by observation and interaction of material landscapes over time, resulting in stewardship dispositions that diverged from original amenity values. The agency of the landscape was a particularly influential force early in land tenure, as participants were generally unfamiliar with their new rural environment.

Amenity preferences for peace and quiet influenced how people learnt through social interaction. Selective across-the-fence neighbourly knowledge exchange showed how landholders frequently learned more about management from communities of practice rather than communities of proximity. Such observations of needs-based knowledge interactions in rural-amenity contexts have been reported previously (Larsen & Hutton, 2011). However, my work shows how amenity values structure this hesitancy to engage with neighbours over conservation issues, based on a desire to 'keep the peace' (Lauren). This dynamic was reinforced by a general unwillingness to interfere with the land management practices of neighbours, even if participants were directly affected by those practices. The perceived 'right' to use your land as you see fit, and to not be disturbed by a neighbour, was highly regarded (Fischer & Bliss, 2008), and extremely influential in shaping knowledge generation through social learning.

A desire to live 'amongst' (William) the environment while avoiding neighbourly confrontation over conservation issues, combined with limited a priori knowledge of rural landscapes, provided the conditions for rapid knowledge generation 'on-property'. As such, the experiences of the property landscape – observation, interaction and response to ecological change – were shown to be powerful in producing experiential knowledge for informing management practice. As a result, experiential learning was often the catalyst for social learning. The way in which participants dipped in and out of communities of practice as needs arose reinforced the subservient role of social learning in knowledge generation. Moreover, advice from wider communities of practice was often tested against personal observation or experience at the parcel scale.

Stewardship dispositions

Over time, knowledge settled into guiding dispositions for stewardship. While evidently changeable in some circumstances (Sally), passive or active dispositions were strongly held and often resistant to external challenge (Knapp & Fernandez-Gimenez, 2009). This tendency was exemplified by Trevor's refutation of Landcare advice in planting sugar gums. Bringing stewardship dispositions to light revealed how passive management is not always a negative pursuit for conservation, while active management is not always a positive (Abrams et al., 2012; Erickson, 2002). As William noted, you can be 'too avid' a conservationist and intervene by removing weed species that may be the only species habitat in the local area (Hobbs, Arico, & Aronson, 2006; Low, 2000). Similarly, native species that 'act' like weeds can be removed due to a disposition that informs a view of ecologies as static (Steve, Sam and Alice, Jim and Beatrice). Conversely, active management may be necessary in order to restore habitat (Tina, Maddy, Nick), or to ensure an invasive weed does not diminish ecosystem function (Ken, Alex and Simone). This dichotomy shows elements of both dispositions may be positive and negative for conservation.

The stewardship disposition interrogated here reflected a mentality for stewarding 'my patch'. The alignment of stewardship to the scale of the property was the most prominent evidence of a connection between amenity values, knowledge generation and stewardship dispositions. Through this relationship I showed how stewardship dispositions reflect a navigation of social good and personal aspirations for nature, despite the largely altruistic motives expressed by many participants. By linking amenity values, knowledge generation and stewardship dispositions, we see how stewardship reflects multiple and sometimes contested aspirations. Revealing in this chapter how these dispositions emerge and settle over time lays the foundation for the remainder of the thesis.

In the next chapter, I use the understandings of amenity values and stewardship dispositions developed so far to analyse the outcomes of management practice as they are expressed in the landscape. This includes expanding further on how the

tensions between individual and social good aspects of stewardship produce novel ecologies. This direction is specifically relevant to later discussion of how landholders respond to voluntary conservation schemes.

Chapter 6

Dynamic ecologies: landscape legacy and boundary making

Introduction

You know, you need to be realistic about living in the bush

(Hannah)

In Chapter 6 I present my interrogation of the outcomes of landholder management practice as materialised in the landscape; that is, the types of ecologies landholders have created and are creating on their properties. This connects the processes that inform management practice (described in the previous chapter) to their tangible expression in the landscape. In exploring the way in which management practice is spatially and temporal enacted, I expose the underlying tensions between amenity values and stewardship dispositions in shaping ecologies (Trigger et al., 2008, 2010). This means uncovering how the 'need to be realistic about living in the bush' translates into management outcomes. In this sense, Chapter 6 makes a contribution to knowledge regarding the production of new ecologies through rural-amenity migration (Cadieux, 2011; Holmes, 2006; Wilson, 2008).

In the previous chapter showed how amenity values had an active role in shaping stewardship by channeling knowledge generation. In this chapter I show how conflicts can also emerge between amenity values and stewardship as landholders dwell on their property through time. Conflict between reducing wildlife risk and being a steward of the landscape is one example. As such, Chapter 6 focuses on how tensions between amenity values and stewardship dispositions are negotiated, as the outcomes of restoration and conservation take shape. The management outcomes of inherent tensions between individual and social good aspects of stewardship are central to this chapter. While the

creation of ecologies was touched on in the interpretation of stewardship dispositions in the previous chapter – owing to the close association between knowledge and praxis – here I delve more critically into management outcomes.

The idea that tensions exist between potentially competing aspirations for land use is by no means novel; ecologies that span private rural land have long been subject to the negotiation of different aspirations. However, the dialogue between the landscape and its inhabitants has traditionally been dominated by production-oriented values, with conservation stewardship motives mediated by farm productivity pressures (Farmer-Bowers & Lane, 2009). The objective of this chapter is to show how the points of tension in the dialogue between landscapes and landholders have shifted through rural-amenity in-migration, producing new types of ecologies.

As identified above, dynamic ecologies are illustrated through the spatial and temporal enactment of practice in the landscape. Through landscape legacy (temporal dimension) I explore how aspirations for the preservation and restoration of ecologies are materialised. In applying the landscape legacy concept from Chapter 3, I emphasise the contested and selective translation of landscape histories into new ecologies. The role of dwelling as a mediator in the re-interpretation of legacies is emphasised. Legacy is further employed to expose tensions between the individualistic aspects and social good aspects of stewardship identified in Chapter 5, and the types of management outcomes that result from this tension.

Occurring in parallel with legacy engagements is boundary making around different natures within the property. My primary focus is the proximal boundaries that are created around the home and denote acceptable and unacceptable spaces for native and non-native ecologies. How these boundaries accord with divergent management practices that further separate these spaces conceptually will also be discussed. This boundary making is presented as having some potential positives for ecological transitions in rural-amenity landscapes.

Despite the prevalence of boundaries for different natures on the property, they were occasionally dissolved through management practices – the retention of weeds for bird habitat is such an example. In a similar manner, in this chapter I show how property boundaries proved both permeable in some respects but not others to the exchange of management practice. However, in demonstrating how practices at and across boundaries are conducted, I underline the centrality of the property space as the area of management interest and responsibility.

In the final section, I consolidate my insights to show how selective engagement with legacy and the boundaries around different natures produce ‘dynamic ecologies’ in rural-amenity landscapes. I use the expression ‘dynamic ecologies’ to characterise natures that are made through the interaction of ecological processes and human-environment relations. These landscapes embody the negotiation of ecological stewardship with broader amenity aspirations through time, including the basic need to accommodate oneself in an unfamiliar and potentially unpredictable environment (Mendham & Curtis, 2010). In this way, dynamic ecologies are shown to be a product of the on-going interplay between people and the environments in which they reside.

In spite of the negotiation of values underpinning dynamic ecologies, they have the capacity to produce tangible conservation benefits. To end this chapter I suggest how the emergence of dynamic ecologies can challenge notions that ‘pure’ nature is the best conservation outcome for rural-amenity landscapes.

Landscape legacy

As defined in Chapter 3, ecological restoration and preservation are inherently temporal pursuits, as we call on the past to bring back or conserve nature. In applying landscape legacy, attention is brought to the underappreciated role of temporal dimensions in shaping to new ecologies of rural-amenity landscapes (Riley, 2006; Walker, 2011). The landscape legacy concept suggests that in translating the past into contemporary management practice, these histories will be selectively interpreted through the unique dwelling experiences of

landholders. The application of this concept is suitable here, as it implies that the arrangement of material nature that has emerged through management practice will reflect the lived experiences of landholders. As such, landscape legacy shows how tensions between stewardship dispositions and amenity values have materialised through preservation and restoration activities.

The landscape itself often served as the entry point for unraveling the histories of landholders' properties or regions. As I noted in the previous chapter, finding out about such histories helped in generating management knowledge. In this sense, the meeting of pre-existing landholder aspirations and the agency of the landscape was a prominent interaction in terms of driving management. For Jeff and Claire, observations of declining numbers of koalas in the trees around their house spawned an increasing interest in their surrounding physical environment:

Claire: Suddenly we realised that this area has just got an amazing [diversity of species]...and that's when we just started to really look into it. You know?

Interviewer: Yeah. So there were people locally that you were able to...

Claire: ...there were some written descriptions of what... historical mainly, which we were able to use as the first sort of stepping-stones to get more and more information.

Claire's 'stepping-stones' analogy captures the informal and punctuated process of uncovering landscape legacies, with each piece of information leading to a new discovery and a new way of observing and interacting with nature. In this section I adapt Claire's 'stepping-stones' analogy to reflect a selective and discriminating journey of legacy engagement for each participant. Some stepping-stones are utilised along this path, some are ignored and some remain obscured from view. However, each legacy encounter is mediated by the experience of living in and interpreting the landscape, producing new ecologies in the process (Clope &

Jones, 2001; Trigger, Toussaint, & Mulcock, 2010). Here the term ‘preservation’ is used to describe the management of existing remnant vegetation, as opposed to restoring vegetation through replanting.

Preserving remnant ecologies

An aerial photograph acquired by Jim and Beatrice in the 1990s proved a notable legacy stepping stone for shaping management outcomes. Spread across the table during our interview, Jim and Beatrice continually referred to the image, pointing out how less vegetation now existed on the properties around them than appeared in the photo:

It is interesting to see how there’s nothing left. There’s nothing left, you know. And this is all there is for pretty much this side of the... highway.
(Jim)

Jim and Beatrice framed their management practices in a very altruistic manner, feeling a great responsibility to be stewards in light of the continued ecological decline around them. Yet, their practices revealed how legacy was being drawn on selectively to satisfy multiple ecological outcomes. Owning one of the only pieces of remnant bushland in this area meant their bush block was under grazing pressure from native swamp wallabies (*Wallabia bicolor*). As a result, Jim and Beatrice were fencing sections of their remnant to exclude wallabies, which protected orchid species and allowed the drought-stressed swamp paperbark (*Melaleuca ericifolia*) to slowly regenerate (Figure 6). Protecting the ecological legacy over which they felt some responsibility – given it was ‘all there is’ – had meant managing the landscape to exclude native fauna.



Figure 6. A remnant patch of bushland fenced to protect against over-grazing from wallabies.

Jim spoke of this fencing as a temporary measure until the regenerated species were large enough to survive occasional grazing; he phrased this as ‘giving (the bush) back to the wallaby’. However, Beatrice noted also that she enjoyed seeing orchids flower in the springtime, and hoped fencing would stop them being grazed. Moreover, Jim had previously mentioned being annoyed that dieback of swamp paperbark made it possible to see right through to the next property, reducing their privacy. What resulted, therefore, was competition between two preservation objectives: protecting vegetation versus providing habitat for the wallabies. Whether the amenity benefits of protecting the vegetation swayed Jim and Beatrice to conduct this practice was debatable. What was evident, however, was the potential for discriminating enactment of landscape legacies in situations where not all management objectives can be achieved.

In a similar vein, Emma was producing some novel management outcomes through selective prioritisation of flora on her property. By allowing the bushland to regenerate on her property (see Chapter 5, page 146), Emma had

allowed a thick cover of bracken to establish. While this was welcomed, Emma and her husband did not enjoy the sight of bracken in the summer, when it died off and turned a 'dull brown colour' (Emma). As a result, Emma's husband would slash a section of bracken that was visible from the house just prior to summer. However, this patch contained some small orchid species that Emma wanted to protect, as there were few others on the property. Figure 6.1 shows one of several tyres Emma had placed around orchids to ensure they were not destroyed by slashing.



Figure 6.1. Emma used some old tyres to protect orchids from her husband's mower.

Like Emma, William was protecting orchid species on his property through selective management. While knowing the orchids 'weren't rare', their aesthetic value prompted William to hand-weed around patches of the plant, while the influx of weed was not addressed in other areas of native vegetation. In both cases, the ecologies being preserved by the participants reflected a negotiation between personal aesthetic values that had emerged over time and more altruistic stewardship objectives.

Steve recognised that he had inherited a landscape that was altered by the gold mining history of the region, despite the presence of mature stands of vegetation:

It's all, well most of it's regrowth from when it was mining. I want to take it back to what would appear to be natural bush so thin it out a bit... that's what we want to do... (Steve)

Appearance is critical here in terms of legacy engagement. The objective is to produce a landscape that 'would *appear* to be natural bush' by trimming back the multiple trunks that emerge from the base of yellow gums (*Eucalyptus leucoxylon*). Steve demonstrated a strong recreational interest in managing his property, and the task of taking it back to a natural state represented an opportunity to be active in the landscape. The same active approach was taken to weed control, and we both pulled weeds as we walked his property. While one might interpret Steve's desire for a pre-settlement ecology as reflecting the altruistic side of stewardship, other activities suggested a strong amenity component to creating this ecology.

In another part of the property, Steve was slashing bracken fern he felt did not belong. This was a conscious effort to get other species to grow in its place. Despite recognising that bracken is a native species, Steve felt its presence was an indication of 'poor quality' land. This view was based on his experience of bracken as an invader of grazing land that is not properly looked after; this was an image he did not wish to project to neighbours or visitors.

When dealing with existing remnant vegetation, selective legacy engagement often presents as the prioritisation of one practice over another. As such, 'preservation' may be the broad goal, but the ecologies produced through management embody the individualistic dimensions of stewardship. This is not to suggest conservation is a purely selfish pursuit for participants, but that preferences will emerge for particular species or ecological arrangements through their dwelt experience.

Restoring ecologies

Those participants looking to restore bushland landscapes had a strong desire to 'bring back' a particular vision of nature they saw as absent. As such, finding out how the landscape 'once was' (the pre-settlement ecology) drove restoration intentions. These 'narratives of redemption' (Head & Muir, 2006, p514) gained strength as knowledge of flora and fauna indigenous to a particular locality grew through social and experiential learning. Tina captured the redemptive sensibility of amenity in-migrants pursuing landscape restoration, by articulating a desire to re-nature the subdivided farmland property she and her husband had purchased:

We wanted the bush [block] but it did occur to us... it was better to buy some farming land and put trees back on than to find a bush block and cut out your piece... sort of try and rehabilitate the bit of land. (Tina)

Nevertheless, the revegetation process was far from straightforward. A desire to return the Gippsland variety of blue gum (*Eucalyptus pseudoglobulus*) to the landscape was compromised by the lack of available seed source – no nursery locally was able to supply these species. As a result, Tina planted the Tasmanian blue gum variety, *Eucalyptus globulus* (seen in the distance in Figure 6.2). Tina reflected on this compromise with some disappointment, but noted the trees served as good habitat for birds regardless.



Figure 6.2. Tina was pleased to have brought nature back to this landscape in the form of vegetation, but the presence of bush rats indicated a tension between stewardship and amenity.

As Tina's revegetation grew quickly, native fauna began to establish niches in the undergrowth, including swamp rats (*Rattus lutreolus*), indicating the habitat offered good protection for ground-dwelling species. However, the rats took a liking to Tina's small hazelnut orchard, eating the nuts directly off the trees. In response, Tina placed rat poison around the orchard. Ultimately, Tina's efforts to 'put trees back' in the landscape had created habitat for a species that threatened other amenity aspirations, namely her hobby farming. As Knoot et al. (2010) found with oak conservation in the US, the idea of regenerating a rare vegetation community can be strongly supported, but clear-felling patches of forest to encourage oak can often be opposed due to adverse aesthetic outcomes. In this scenario, Tina was keen to bring back the flora, but not the fauna that inhabited it.

Five other participants had restoration objectives similar to Tina's when they moved to their properties. In Hannah's case, she saw her purchase of the

property as the first opportunity since the region was grazed to bring nature back in some form:

I guess the trees we've got out there are really a bit exciting for this land.
(Hannah)

Hannah is expressing a sense of giving a voice back to the landscape, by allowing the vegetation to passively regenerate from the seed source in the soil. Hannah was familiar with the area when growing up, and heard stories of the heavily degraded condition of the land from those who drove sheep across it on horseback. She also remembered the 'eroded creeks', dying eucalypts and barren paddocks from her own childhood memories. The opportunity to facilitate the re-emergence of an ecological legacy meant the trees were not just 'exciting' for the land, they were exciting for Hannah as well. How Hannah has balanced this regeneration with other amenity aspirations is picked up in the discussion of boundary making below.

The restoration of a specific legacy was evident in Karen's attempts to bring back an ecology she had helped remove from the landscape. Indeed, four participants noted they now encouraged the growth of a species they had removed in their early days on their properties, mostly due to an initial belief the species was an invasive weed:

There was some pretty horrible vegetation decline in the early days... I have to admit that we cleared a lot of stuff in the early days... but we're endeavouring to replace it. (Karen)

Observing birds foraging led Karen to realise that removing vegetation reduced their habitat. From that point on, planting vegetation rather than removing it was her priority. This was most powerfully translated through Karen's experience with swamp paper-barks. Karen said she spent years 'grubbing them out' (digging up the roots) as shoots emerged, as she viewed them as an invader of grazing land. Having learned they were good habitat for small birds from a

local re-forestation group, she was keen to encourage their re-establishment. Karen was excited to show me the first tree that had regenerated as a result of her fencing a section of remnant vegetation to protect it from her small herd of cattle (Figure 6.3).



Figure 6.3. Karen was very pleased with the regeneration of this patch of swamp paperbark (*Melaleuca ericifolia*). It symbolised her story of recreating lost landscapes, and her changing management practice.

Just outside the fence where this image was taken, stood a mature remnant black sheoak (*Allocasuarina littoralis*). This native species was exposed to cattle, with the soil around its base heavily compacted; the tree looked in poor health. Karen knew this species was a good source of food for birds, having planted it along her driveway with the intention of providing habitat. To Karen, the swamp paperbark was a symbol of redemption (Gill et al., 2010; Trigger et al., 2010) and restoring it was more important than protecting an existing remnant.

Nick had a similar legacy encounter, though his experience resulted in a decision to prioritise a self-regenerating ecological legacy over a legacy he had attempted to restore. Nick tried planting a native ground cover as part of his revegetation of a degraded remnant patch on his property. He considered this an experimental planting, with doubts that the species would establish amongst the surrounding pasture grasses. However, upon its successful spread, Nick was faced with another dilemma. The ground cover he had planted was beginning to compete with another indigenous ground cover species that had regenerated of its own accord. Nick was contemplating 'cutting-back' or 'spraying 'around the edges' of the ground cover he had planted, as he felt the self-seeding species was more attractive and had a stronger claim to belong in that space. Nick reflected on the fact that much of the restoration work he does comes down to a 'matter of visual preference', given how difficult it was to know exactly 'what grew here' originally. Unlike Karen, Steve and Tina, Nick was conscious that he was creating a new landscape.

Summary

Although Nick and Karen engaged differently with landscape legacy, their own embedded interactions with nature were equally bound up in how legacy was expressed through the outcomes of restoration. The selective, contested and compromised translation of landscape legacy into management outcomes shows how stewardship dispositions are negotiated. However, it also shows how landholders' aspirations and the agency of nature on their property are intricately linked in the creation and re-creation of novel ecologies. Sometimes this negotiation is between non-conservation amenity values and stewardship. But perhaps more prominent in the legacy context is the negotiation of individual and social good aspects of stewardship itself. In this sense, being a steward of one's patch means that aesthetic and redemptive nature aspirations mediate management practice, resulting in the materialisation of these aspirations in the landscape. Thus, drawing on the 'stepping stones' of the past in understanding what elements of the landscape should be restored or preserved creates new ecologies that embody a re-interpretation of that past.

The boundaries of nature

Living within the environment that one is managing can result in conflicts between different aspirations, producing unique spatial arrangements of nature on the property. This was portrayed above by Tina's poisoning of swamp rats in her hazelnut orchard, and Jim and Beatrice's fencing of plots to exclude wallabies. Here I focus on how participant's management is spatially enacted, with specific emphasis on landscape aesthetics and proximity to the home.

Proximal boundaries relate to the immediate living space around the house (termed the domestic space) as opposed to the perceived bushland space beyond. This reflects the amenity value of wanting to create a safe and familiar domestic living area described in Chapter 5. For most participants, this domestic space was the domain of non-native ecologies; indigenous ecologies were restored or preserved beyond this boundary. In creating and maintaining this boundary, new ecologies were being negotiated, as stewardship dispositions (applied in the bushland space) were played off against non-conservation amenity values (domestic space). Figure 6.4 identifies how sharply these spaces could be defined, but also the different management practices applied in each.

Despite the frequent delineation of domestic and bushland natures, the management practices of participants occasionally permeated these boundaries. The idea of permeable management boundaries also applied to property boundaries; the spread of species across fence lines challenged ideas of private ownership and responsibility. For some landholders, the flow of material nature across property boundaries was a trigger for social learning, translating into new management practices and ecological outcomes.



Figure 6.4. This image of Kelly's property perfectly captures the bounding of natures. The natural space (left of picture) is left largely untouched, and domestic space (right of picture) is frequently mown.

Proximal boundaries – bushland space and domestic space

In Chapter 5 I showed how the desire for a domestic living space around the home was a key amenity value for participants. By excluding undesirable nature and providing a safe, familiar environment for living (Kaika, 2004; Power, 2009), participants were attempting to settle into their new surrounds. The domestic space around the house, represented by the edge of a driveway, a yard fence or the end of a mown lawn, presented stark management boundaries for several participants. Figure 6.5 provides a generalisation of how the domestic space encompassed the area directly around the house. In the vast majority of cases, indigenous nature was encouraged outside the domestic space, while non-native ornamental species were encouraged inside this boundary. In contrast to the 'committed native gardeners' depicted by Muir and Head (2006, p 515), even landholders with strong conservation motives created clear partitions between natural and domestic spaces. While aesthetic divides of flora (native/non-native)

often defined these spaces, boundaries were also applied to fauna species considered dangerous, such as snakes.

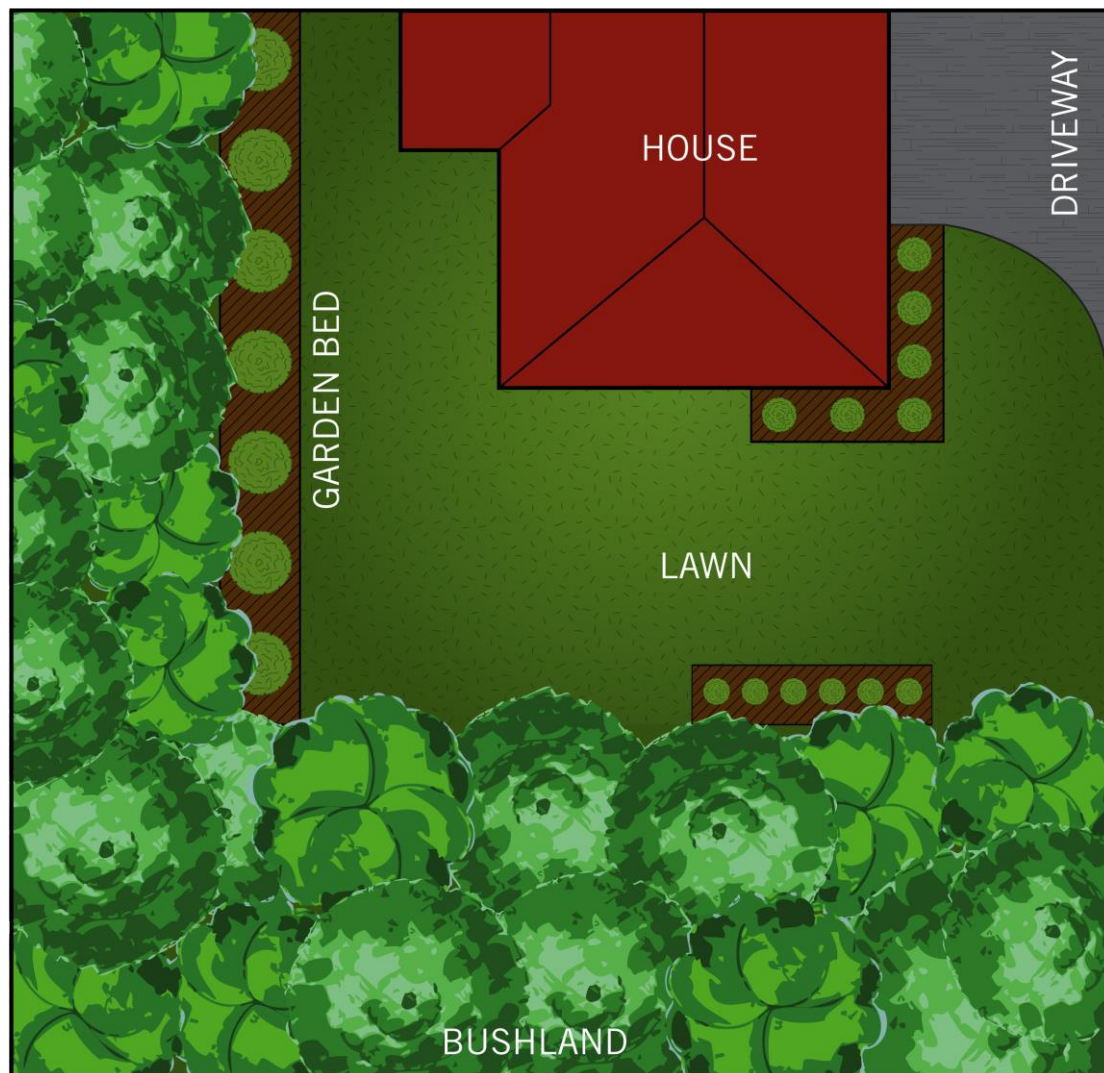


Figure 6.5. A depiction of proximal boundaries of domestic space based on observations from participants' properties. Lawns, garden beds and driveways are often demarcations between the domestic space and the bushland space.

Stories of frightening encounters with snakes were common, with all but three participants giving me vivid descriptions of close encounters from all but three participants. Despite the fear that permeated these narratives, snakes were never considered to be a wholly unacceptable presence on the property. Instead, snakes were tolerated in the bush 'where they belong' (Sally), but often killed when they ventured into the domestic space:

Simone: 'Like we don't normally kill them, like if we see them over in the paddock we don't normally kill them, that's just if... there was one there

[points to horse paddock adjacent to house]... you can't leave it in the horse paddock...

Alex: Haven't been many, you could count them on one hand in 12 years.

This was a common sentiment: a begrudging belief that snakes found close to the house must be killed to ensure the safety of the domestic space, despite recognition of the place of snakes in the local environment. Rob, Sally and Emma were similarly able to identify a physical demarcation signifying a zone where snakes were not tolerated. Rob said those found in his small yard have 'got to go'. Steve was the only one of the 22 participants who appeared unconcerned by the presence of snakes close to the house:

If they come close to the house we just realise they're there and avoid them... I know it's illegal [to kill snakes] but we don't believe in it and we wouldn't [kill them] even if it was. (Steve)

The prominence of non-native flora inside the domestic space re-emphasised the place of the property in fulfilling a range of amenity in-migration values. Hannah talked of the fact that they 'keep this bit for ourselves' (the formal garden around the house). Hannah 'liked the contrast' of formal garden in the foreground and indigenous bushland in the background as she looked out her kitchen window. Figure 6.6 shows how Hannah's driveway and row of agapanthus served as the boundary between domestic and bushland space.



Figure 6.6. The agapanthus (purple flower) running alongside Hannah's driveway separated the domestic space from the bushland space.

Sally expressed a virtually identical sentiment, noting:

I like to have that as my – the native bit as my backdrop and have the more vivid green stuff closer to the house. (Sally)

Having an ornamental garden signified a need 'to be realistic' about living in an environment Hannah had previously described as a 'harsh landscape'. Being 'realistic' captured a desire on the part of landholders to exert some control and order over a space, even a small one, where the harshness of drought could be held at bay. However, in seeking to control these spaces, the actions of landholders showed how both the growth of native flora and the movement of snakes actively propagated these management boundaries. Hannah and four other landholders spoke of trying to keep their lawn or garden green for as long as possible leading in to summer, suggesting a desire to protect the domestic space from climatic impacts as much as practicable. The presence of a lively

garden and a green lawn offered comfort from an unsympathetic landscape beyond the boundary of the domestic area.

Alex and Simone took a specific approach to the planting of the linear tree buffer that was closest to their house. As seen in Figure 6.7, this fenced section was planted out exclusively with non-indigenous callistemons (species unknown) 'designed to look good' (Simone), given its proximity and visibility from the house. The location of this planting stretched notions of a domestic space beyond the direct proximity of the home into areas easily visible from the home.



Figure 6.7. Callistemons (species unknown) recently planted in the tree line closest to the house, for the purpose of creating a more attractive visual than the remnant indigenous bushland, pictured rear left.

The other plantings around the edge of the property were functional from a pure ecological perspective, reflecting mostly indigenous middle and upper-storey species (Figure 6.8). The difference in approach to plantings based on proximity and observation from the house is very distinctive when comparing the two

images. This demonstrated the role of ornamental planting and natures as a visual break from the subdued visual of the bush; having something else to look at made the bush an easier place in which to live. For Alex and Simone, as for many other landholders, non-indigenous natures served to enhance habitability due to their more predictable behaviour.



Figure 6.8. Tree plantings (planted species in foreground) near the property boundary were planted out with indigenous species, for the purposes of creating functional habitat corridors.

A common thread emerges from the above narratives concerning the appropriation of space for nature and space for ‘us’ (the ‘homely’ space (Power, 2009)). Allowing oneself a domestic space in which to create distinctive ornamental floral assemblages is to exert a type of control over nature. This sense of control is much more elusive in the bushland space, as demonstrated by participants’ experiences with ecosystem change and in Chapter 5. Jim’s earlier struggle to regenerate bushland to give ‘back to the wallaby’ echoed this challenge. Thus, space ‘for ourselves’ (Hannah) makes it easier to accept the unpredictability of the bush, providing landholders with a distinct outlet for expressing their agency in the landscape. This appeared particularly important to participants like Sally, who approached bushland management with great

trepidation for fear of making a mistake (see Chapter 5, page 183). Tending a garden and fruit trees provides an outlet for demonstrating management competency and establishing a sense of belonging to a place. This was important for participants, as living in the bush often proved to be more difficult than they had envisaged prior to in-migration.

In showing the role of ornamental natures in fulfilling amenity aspirations I do not seek to undermine the role of restoration and preservation as part of the amenity pursuit (Urquhart & Courtney, 2011). However, being a steward of the landscape was made easier by allocating space for non-native ecologies. In other words, non-native ecologies helped to create room for the expression of stewardship elsewhere on the property. This was especially true when ornamental nature had been a cornerstone of the landscape at a previous residence. William, Emma and Sally had all planted ornamental species (rhododendron, Japanese maple and silver birch, respectively) that featured in the gardens of a past suburban home. This reinforced the comfort provided by the ornamental garden; having a 'bush bit' and a 'home bit' (Emma) provided the 'best of both worlds' (William). It also demonstrated how landscape legacies relating to exotic natures could be carried by in-migrants to their bushland properties and enacted to provide this comfort.

Despite the prominence of the divide between domestic and bushland space, there were some instances where management practices could dissolve this boundary. Four landholders adopted management actions in their domestic space for the purpose of minimising negative impacts on their bushland space. Hannah was particularly conscious of managing her ornamental garden in the context of the surrounding bushland. She had decided to 'dead-head' her agapanthus (*Agapanthus africanus*) pictured in Figure 6.6, to stop them invading the bushland areas. Sam and Alice showed a similar reasoning in growing ornamental flowers in hanging pots rather than planting them adjacent to bushland; this brought colour to the outlook from their veranda, but reduced the likelihood of the flowers spreading into the bush. Both these examples showed

an awareness of how management – or more specifically non-management – can impact across boundaries.

Property boundaries and the movement of nature

The rupturing of boundaries was not restricted to nature, with property boundaries proving permeable to practice in two distinct ways. Firstly, some landholders did not recognise their property boundary as a demarcation of their management responsibility, conducting a variety of works on adjoining land. Second, the disjuncture between property boundaries and the boundaries of ecosystems meant the spread and movement of nature across fence lines generated management practice. Interestingly, it was a confronting realisation for many participants from a suburban background that nature did not recognise property boundaries in its spread and movement.

Five landholders indicated they occasionally crossed their property boundaries to conduct some form of bushland management practice. Steve regularly jumped the fence to pull weeds out of his neighbour's place. He mentioned on one occasion his neighbour came out as he was weeding, and was thankful for Steve's efforts. Ken had no fence delineating his property (like several other landholders on at least one of their boundaries) so he was 'not really sure where the boundary is exactly'. Regardless, Ken wanted to remove gorse (*Ulex europaeus*) wherever possible, to avoid a re-infestation following years of tedious removal efforts along his creek line. While Steve and Ken were working freely beyond the property, their work was motivated by a desire to maintain their patch.

Emma highlighted how prioritisation of one's own patch operated in conjunction with cross-boundary efforts. She had spent years removing regenerating pine trees from her property to give the returning bushland a chance to establish. Despite the lack of fence lines between her property and her neighbours (who also had regenerating pines) on two sides, Emma had mostly kept her removal efforts to her own property. On only a few occasions had she taken up an invitation from a neighbour to remove their pines. This only happened when there was no pine removal to be done on her property. Thus, despite the

continual re-infestation of pines from next door, Emma kept largely to the space she felt was her responsibility. Figure 6.9 shows how the pines have become a quasi-fence line.



Figure 6.9. While Emma's pine removal activities occasionally encompassed her neighbour's property, the priority was removing pines on her own place. The pines have now grown up to become a visual identifier of the boundary.

The diffusion of nature across ownership boundaries had the potential to change management practice and in some cases, influenced social interaction around management practice. Deadly nightshade (*Atropa belladonna*) spread from a neighbour's place onto Alice and Sam's property. Their neighbour noticed this however, and jumped the fence to pull it out:

Alice: ...he found some on our side of the fence and he pulled it out too.

Sam: It would have washed through with the rain.

Alice: ...that was nice of him, because I wouldn't know what it looks... now I'll have to find out what it looks like so we can keep on the alert to keep that off the property.

This exchange had only occurred a week before my visit, so Alice had not yet consulted a local weed guide to find out what deadly nightshade looked like. When we walked the property, she asked both Sam and myself to point it out on the neighbour's property, and then she spent some time walking her side of the boundary to see if any further plants had popped up. In this case, the spread of weeds from their neighbour's place, and the action's of their neighbour in letting them know about it, had combined to produce both new learning and potentially a new ecology.

In these select examples, the movement of nature across property boundaries was exposing interesting tensions between stewardship and amenity. While crossing boundaries to treat weeds demonstrated an element of altruistic stewardship, often it was the protection of 'my' ecology that motivated this practice. Steve and Ken did altruistically remove weeds from their neighbours, but this was not seen as an opportunity to work collaboratively with neighbours across boundaries to address shared responsibilities (Gill et al., 2010; Yung & Belsky, 2007). Despite the continued presence of deadly nightshade on Alice's neighbours' property, her focus was on making sure it was not on her property. Here we see the emphasis on the *owned* space in dictating ecological outcomes; in Emma's case, this was producing a distinct ecological mosaic that correlated with the property boundary, despite the absence of a fence line.

Summary

My examination of boundary making revealed the strong association between exotic natures and the sense of comfort landholders seek from the domestic space around the home. The need for the domestic space to be 'safe' was also reflected in the killing of snakes that entered, in contrast to snakes that were left in the bush. In this sense, the domestic space was contrasted with the bushland space beyond, reflecting strong partitions between exotic and indigenous nature.

While these boundaries were occasionally breached to produce a hybrid dynamic of exotic and ornamental species (William) this was the exception. However, as I will elaborate in the final section of this chapter, amenity values for exotic nature should not be seen exclusively as a negative for ecological conservation or restoration.

Finally, I reflected on occasions when property boundaries were seemingly permeable to management practice, through the crossing of people and flora in shaping ecologies. However, on closer analysis, the crossing of boundaries appeared to reinforce the prioritisation of private property management over working collectively across boundaries. In the final section of this chapter I discuss select participant narratives and the wider literature to illustrate how dynamic ecologies are being negotiated in rural-amenity landscapes.

Negotiating dynamic ecologies

Through examining boundary making and landscape legacies I have shown how ecologies are spatially and temporally negotiated by landholders. The creation of 'domestic' spaces for nature demonstrates how amenity migrants can be active in creating new ecologies through a preference for ornamental species.

Moreover, preservation and restoration objectives often result in contested and re-interpreted notions of belonging through landscape legacy. Tensions around the personal and collective expression of stewardship dispositions and conflict between stewardship and amenity values are at the heart of this negotiation. The final section of this chapter focuses more intently on how these points of tension are producing 'dynamic ecologies' that emerge in the context of rural-amenity migration. I posit that we should not view these dynamic ecologies as solely negative or being at the expense of bushland conservation in rural-amenity landscapes.

In adopting the term dynamic ecologies, I look to characterise natures that are continually made and re-made through natural processes (Duit, Galaz, & Eckerberg, 2010) *and* human-environment relations (Power, 2005). The notion

of dynamic change in ecosystems over time is a well established, especially in the SES literature (Folke, 2007). Similarly, recognition that dynamic social processes shape the management of ecosystems is evolving (Cinner, 2011; Cooke, Langford, Gordon, & Bekessy, 2012; Wilson, 1997). By capturing both social and ecological processes in the production of nature, the 'complex dynamics of rural occupance' (Holmes, 2006, p156) are connected to the making of complex and dynamic ecologies.

Negotiating amenity values and stewardship in creating ecologies

Are amenity preferences exclusively negative for ecological outcomes?

As noted in Chapter 2, a key negative impact of amenity in-migration is the further degradation of rural environments. This includes in-migrant preferences for non-native species, and neglecting to treat invasive weeds in lieu of pursuing recreation-oriented activities (Cadieux, 2011; Klepeis et al., 2009). Limited interest in cross-boundary collaboration in addressing management issues also contributes to this concern (Mendham & Curtis, 2010). Evidence of similar outcomes was discovered in my research through the performance of landscape legacies and boundary making around different natures. The ecologies that are being created on rural-amenity properties often involve some negative outcomes, or serve to restrict landscape-scale management efforts.

Despite the potential for negative conservation outcomes, my characterisation of dynamic ecologies is framed as a largely sympathetic critique of the outcomes of management practice. In describing the often-uneasy stewardship prioritisations that in-migrants make through management, as well as the potential for positive ecological outcomes through seemingly negative practices, I have sought to show the complexity of these ecologies. Reflecting on my introduction to this chapter, I argue that these ecologies represent a shift in the points of tension between competing land use and conservation objectives as many rural regions move towards a multifunctional land use trajectory (Cocklin & Dibden, 2006).

The imperative to make a living from agriculture means stewardship is often balanced with productive pressures (Farmer-Bowers & Lane, 2009; Riley, 2011; Sutherland et al., 2012). This can result in restoration and preservation efforts in only non-productive parts of rural properties, and an emphasis on treating weed species that impact on primary production (Burton, Kuczera, & Schwarz, 2008; Parbary et al., 2008). Rural-amenity transitions are shifting these points of tension with stewardship from a productive origin to a lifestyle origin. Seclusion, aesthetic values, recreational enjoyment, individualised management and domestic space are now more prominent. As a result, the ecologies being produced are reflective of these shifting points of tension – and these outcomes are not always detrimental. Just as the negotiation of stewardship in a farming context produces heterogeneous ecological outcomes, so does this negotiation in rural-amenity landscapes.

By giving different spaces to different amenity aspirations, landholders have been able to progress their stewardship motives without being overcome by them. What I mean here, as William succinctly phrased, is: ‘it isn’t easy being green sometimes’. The loss of a key habitat tree in a storm (Pauline and Alex), weed invasion from neighbouring properties (William) and the physical exertion involved in restoring degraded land (Sam and Alice, Ken, Nick) can all take their toll on stewardship motives. This is especially true when you live in the space you are seeking to conserve. Creating room for other types of nature can make establishing this living a much less confronting task. Moreover, as Pauline simply stated, ‘you can get sick of looking at the bush’; many people find beauty in a diverse aesthetic of different natures. Ornamental natures also allow landholders to exert more agency in shaping their property landscape. Participants who created room for other types of nature appeared to be more accepting of the harshness and unpredictability of the bush and the management challenges it presented. This phenomenon was manifested quite distinctly in the mentality of accepting the risk of dangerous snakes in the bushland ‘beyond’, but excluding them immediately from the domestic space.

Many participants struggled to balance the needs of the domestic space and the bushland space. Over the duration of tenure, landholders' conceptions of boundaries and the belonging of different natures could be challenged by shifting ecologies. Sam and Alice were struggling to resolve a conflict between the preservation of a safe and benign domestic space and the observed needs of nature. In this case, natural space had breached the domestic boundary:

Sam: Oh, we had trees right up to...that fence just out there. We cut all them down. We've left those ones at the front where you can see the top of those. All the wrens and birds breed in that. That's the nursery, so we can't cut them down because that's their safety.

Alice: I'm trying to talk him into clearing that.

Sam: I won't though.

Alice: But he won't, so we compromised. If he trims them down...

This tension between domestic and bushland space was uncomfortable for Alice, though a compromise of trimming back the shrubs has brought acceptance to the rupturing of the domestic space. This interplay shows how the negotiation of ecologies is ongoing (Holmes, 2006) and simultaneously underscores how undertaking practices that negatively affect conservation are rarely conducted flippantly or without reflection.

Elsewhere, competition between amenity aspirations and ecological 'best-practice' has been characterised as hindering to effective management in rural-amenity contexts (Gobster, 1999; Knoot et al., 2010). Whilst not questioning this potential for conflict, we should not ignore the enabling capacity of ornamental nature for pursuing altruistic bushland management. Allowing space 'for me' (Hannah) can bring a sense of acceptance to the lack of control one might feel over the management of bushland. I observe these potential benefits of ornamental nature without presenting the argument (further discussed in the

next section) that non-native ecologies are frequently found to have important habitat value in their own right (Hobbs, Higgs, & Harris, 2009; Prévot-Julliard, Clavel, Teillac-Deschamps, & Julliard, 2011).

There is a link between creating and preserving domestic space to the idea that farmers prefer a 'neat and tidy' landscape (strait crop rows and well-tended paddocks) that proclaims the skill and capacity of the owner as a primary producer and land manager (Burton, 2012; Burton et al., 2008). In this case, a well-kept garden in the midst of a bushland environment helped participants to demonstrate competence as a property owner to themselves and to others. The evidence gathered in my research suggests that a preference for a familiar domestic space is not completely negative for conservation in rural-amenity landscapes (Burton et al., 2008).

'Wilderness management' producing dynamic ecologies

Landscape legacy showed that a desire to restore or preserve ecologies was prominent amongst participants. Chapter 5 also demonstrated how this stewardship aspiration to 'bring back' nature was keenly felt. While often expressed as a desire to steward 'what belongs' (Emma), the resultant dynamic ecologies were far from the natural ecology envisaged. In failing to achieve 'pure nature' (Lien & Davison, 2010, p238), landholders were consciously and unconsciously exposing the folly of a wilderness management mentality in rural-amenity landscapes (Low, 2000).

As Low noted (2000, p44), 'wilderness management is a necessary contradiction', indicating that what we perceive as wild nature often needs to be managed for the exclusion of pests and other unwanted elements to keep it 'natural'. As such, wilderness management can produce 'conscious reconstructions of what humans think is natural' (ibid). What was evident through landscape legacy is that ideas of what is natural can also become contested, especially in a restoration context. The agency of the landscape had confronted participants like Nick and Liz with a tension between different natures that seemingly had equal claims to belonging. Indeed, Nick's case

specifically showed how ideas of belonging can be ruptured in such a context. By intending to cut back a native creeper he had planted to favour the growth of another self-seeding native creeper, Nick was prioritising the species he thought looked the most attractive. Encouraging the species that fulfilled his 'visual preference' showed how amenity values could be leveraged to address necessary management prioritisations.

Despite these sometimes necessary prioritisations, enacting landscape legacies also spark conflicts with non-conservation amenity values that produced negative outcomes. Steve's actions to remove bracken that he knew was native, but gave the appearance of what he thought was 'poor quality' land, fed into the aesthetic aspirations for ecologies that permeated stewardship. In this sense, Steve showed how stewardship was often bound-up in preferences for nature that did not reflect the logic of 'pure' restoration (Trigger et al., 2010). This was especially true of landholders who sought to create ecologies that had aesthetic and recreational value. Gareth (program coordinator) spoke of a landholder who was consciously trying to 'speed up' evolution by replanting species that would have likely regenerated anyway, to experience a landscape 'taken back' to pre-settlement times.

The aesthetic management pursuits of participants in my research has strong parallels to those of amenity landholders described in Gill et al. (2010), who were removing black wattles in the belief they were inhibiting rainforest rehabilitation. In reality, black wattles and bracken are likely to facilitating a rainforest and bushland reestablishment process (respectively) over timescales well beyond the tenure of the current owners. However, landholders wanted to see and experience this ecology on their land, and thus sought to try and speed up this process. This also taps into the desire to steward one's land in a personal and individual sense. While this desire presents itself as a negative for conservation in amenity landscapes, in the next chapter I show how individualistic approaches to conservation could be leveraged for social good benefit.

The potential for perverse outcomes in attempting wilderness management showed how dynamic ecologies could deliver positive outcomes for nature. As William's story showed in the introduction, being 'too avid' in preserving a landscape legacy would have meant removing exotic species that were serving as bird habitat. Moreover, William, Jeff and Claire, Nick and Lauren had removed exotic weeds, only for the cleared space to be occupied by an even more virulent bushland invader. The recognition that weeds can serve as habitat connects with a literature stressing the value of hybrid ecologies as providers of ecosystem function (Hobbs et al., 2009; Hobbs et al., 2006).

The value of hybrid or dynamic ecologies is especially pertinent when the landscape has been highly modified through development and agriculture (Head, 2011). Therefore, some flexibility must be shown in our expectations of conservation outcomes in rural-amenity landscapes (Prévot-Julliard et al., 2011). As such, the dynamic ecologies that have come to light in this chapter should not be considered restoration or preservation failures, but rather a *new* ecology, encompassing the ornamental natures and re-interpreted legacies discussed above.

Carrying forward dynamic ecologies?

A byproduct of engaging with landscape legacy is projection of new legacies into the future (see Chapter 3). Projecting new legacies was evident from the stories of six landholders who wished to pass their properties onto their children. Rob mentioned that one of his sons was keen to take over the property eventually, telling me his advice to his son will be to plant more of the bottlebrush (left) and banksia (top right) species (Figure 6.10) in locations along the driveway and close to the sheds and house. As noted in Chapter 5, these species were seen as hardy and requiring less maintenance than the indigenous tea tree 'which is always falling over' and the indigenous black wattles, 'which are a bloody nuisance'. Rob mentioned he regretted encouraging the growth of black wattles particularly, despite recognising 'they deserve to be there' and in hindsight would have done things differently.



Figure 6.10. Bottlebrush (*Callistemon spp.*) and coastal banksia (*Banksia integrifolia*), left and top right of picture respectively, were seen by Rob as attractive non-indigenous species better suited to domestic areas than the indigenous species like prickly tea-tree (*Leptospermum continentale*).

Rob's adoption of a conservation covenant and reluctance to leave his bushland environment led to me to view his advice as a guide for amenity lifestyle in the bush; how to make one's life easier in the property space whilst still fulfilling his own ideas of what it means to be a good steward of the land. Passing this knowledge onto his son represented an attempt to continue to preserve the landscape legacy he has already protected with a conservation covenant, but to also pass on ideas of how to negotiate a living by reducing the demands of ongoing property upkeep. This was a striking revelation that hinted at a type of 'amenity knowledge' that was being passed between generations, in much the same way as traditional farming knowledge might be in an agricultural setting. In the next chapter I continue on this theme of projecting legacies into the future through voluntary conservation schemes.

Conclusion

The idea of balance or compromise between competing aspirations is not new with respect to either productive or amenity-orientated land uses (Trigger et al., 2010). In a farming context, Beilin (2007, p143) noted that the loss of land use function through soil degradation and land slippage resulted in a desire to plant trees and re-create a 'nature-like' landscape that was more functional and visually appealing (p146). In this sense, the creation of 'hybrid space that reflects socio-ecological synergies' (ibid, p153) is not restricted to lifestyle-orientated landholders. Research in amenity contexts has also revealed how the diverse goals of property owners result in a need to balance 'their own needs' for living on the property, with ecological management objectives (Fischer & Bliss, 2009, p890). Here, I have sought to contribute insight into *how* landholders' needs have come to be materialised in the landscape over time.

Landholders are producing ecologies that are dynamic in the sense that they reflect a variety of natures in a multitude of continually changing arrangements. What is seen to 'belong' often links back to indigeneity in some sense, but the process of 'bringing back' ecologies results in unanticipated outcomes, rupturing ideas of 'what the landscape should be like' (Liz). In other words, efforts to preserve and *re-create* landscapes of the past are resulting in the production of landscapes anew (Hinchliffe, 2007). Elaborating on the idea of landscape legacy first elaborated in Chapter 3 has brought to light the mediating process of dwelling in this re-interpretation of past ecologies.

The idea that ecologies are emerging through a negotiation of stewardship aspirations and the process of accommodation in the landscape was displayed most evidently in the discussion of domestic space. Ornamental natures helped landholders to create a sense of home, while serving as an active space for exerting competence as a land manager. Interestingly, allocating space for non-native ecologies did not necessarily result in a greater sense of belonging for those ecologies over the surrounding bushland (Head, 2011), it simply helped to blunt the unpredictability of living in the Australian bush.

In suggesting dynamic ecologies should not be seen strictly as a failure of ecological management objectives, I have sought to challenge depictions of human agency in nature as an 'impact' in only a pejorative sense (Trigger et al., 2010). This chapter revealed that the way in which management practice has been spatially and temporally enacted in the landscape has potential benefits for conservation. This includes a refutation of wilderness management and an acceptance of non-native ecologies as critical habitat in highly modified landscapes. Ultimately, the production of dynamic ecologies shows how enacting stewardship is complex and contested, especially when one is simultaneously coming to grips with living in an unfamiliar environment.

Chapter 7

Tensions of policy and practice: how landholders enact voluntary conservation schemes in rural-amenity landscapes

Chapter introduction

In Chapter 7, my aim is to reveal how voluntary conservation schemes are operationalised by participants, and how this compares to the intention of the program. As noted earlier (Chapter 2), voluntary conservation schemes are increasing in popularity globally, with particular interest in the promise of market-based instruments (MBIs) for providing incentives for landholders to deliver conservation outcomes. Despite this, limited research has been undertaken into the drivers for conservation scheme adoption, or how schemes are actually operationalised by landholders on their properties (Merenlender et al., 2004). This is especially true of rural-amenity landscapes (Gosnell, 2011).

In this chapter I deploy the dwelt human-environment perspective outlined in Chapter 3 to interrogate how schemes are operationalised by landholders. The particular value of this perspective is the positioning of people and nature as active agents in mediating the implementation of programs, rather than being passive recipients of program objectives (Castree, 2007a; Johnson et al., 2012). The implication, therefore, is that environmental policy can be adopted in creative and unanticipated ways that depart from the main policy intention (Higgins & Lockie, 2002; Hinchliffe, 2007; Lockwood & Davidson, 2010; Rissman & Sayre, 2011). I look to position the amenity values, stewardship dispositions and dynamic ecologies that emerged in Chapter 5 and Chapter 6 as mediating forces in explaining the implementation of voluntary schemes by participants. As such, the synergy and divergence between policy intentions and landholder implementation extending from these complex interactions will be this chapter's over-arching theme.

I structure this chapter as three discrete sections, each addressing one of the conservation schemes previously outlined: Trust for Nature covenants, Land for Wildlife and EcoTender. As noted in Chapter 4, each program was selected due to its capacity to reflect the three fundamental policy instruments available to policy makers in the design of conservation schemes in Victoria: binding legal agreements (Trust for Nature covenants), market-based instruments (EcoTender) and suasion (Land for Wildlife). The treatment of each scheme separately follows the sub-case study design outlined in Chapter 4.

Each section begins with a description of the scheme's institutional design and objectives, with some reflection from the academic literature. The key themes to emerge from the data analysis are then discussed, based on the narratives of both landholders and extension officers. A reflection on these findings at the end of each section focuses on the key disparities between scheme intention and landholder implementation. An expanded conclusion covers the main findings across the three schemes, serving as a basis for discussing broad principles for voluntary conservation policy design in Chapter 8. Specific recommendations for each scheme covered here are provided in Chapter 9.

Trust for Nature: individualised collective action and projecting landscape legacies

Introduction

This chapter focuses on how landholders implement Trust for Nature covenants in an effort to extend the spatio-temporal reach of their on-property management practice. I engage primarily with the concept of landscape legacy from Chapter 3 and Chapter 6, and the individualised on-property focus of management elicited through amenity values in Chapter 5. This work extends existing knowledge about why landholders are interested in conservation covenants (Farmer, Knapp, Meretsky, Chancellor, & Fischer, 2011; Merenlender et al., 2004; Rissman & Sayre, 2012).

I use the concept of Individualised Collective Action (Micheletti, 2003) to consider how landholders are activating a desire to contribute to collective good conservation benefits at a landscape scale through pursuit of discrete and individualised actions on private land. Landholders are using covenants to protect their discrete on-property management efforts, but for some participants, this is conceptualised as a personal contribution to conservation at a larger landscape scale.

I also address the operationalisation of covenants to protect landscape legacies into the future, especially when property sale becomes a consideration. Selling property is an interesting juncture for covenants and covenant holders, where landscape legacy is reinforced as representing more than ecological legacy.

Background and scheme objective

The objective of Trust for Nature conservation covenants is the permanent protection of biodiversity on private land in Victoria. This protection is targeted at the ecosystem services biodiversity provides, as well as the intrinsic value of nature itself (Trust for Nature, 2011a). Trust for Nature recognises that two-

thirds of the land in Victoria is held in private hands, making preservation of the flora and fauna on private land of critical importance for safeguarding Victoria's environment. Much of the biodiversity contained on private land is viewed as not currently receiving the necessary protection (both in terms of protection from clearing or a decline in ecological integrity through mismanagement) to ensure its ongoing persistence.

By offering landholders the opportunity to preserve the ecologies on their land in perpetuity, the Trust aims to create an estate of protected and managed private bushland that complements public land reserves (Trust for Nature, 2011a). For the sake of later discussion, this process can be thought of as a mission to preserve the ecological legacies that remain on private land in Victoria. I use the term 'ecological' legacy specifically to denote the biodiversity focus of the Trust's preservation focus. This departs from the description of negotiated landscape legacies that many participants ultimately produced in Chapter 6. This subtle difference will come to the fore at the end of this section.

Conservation covenants are legally binding agreements struck between private landholders and governments or land trusts. These agreements revolve around the restriction or control of particular land uses such as grazing or property subdivision in order to preserve some ecological asset (Fitzsimons and Wescott, 2001; Saunders, 1996). Along with a restriction of use, some covenants can also mandate specific management actions, such as the control of invasive flora or fauna. Trust for Nature covenants (like most covenant agreements) are linked to the title or deed of the property, meaning they are designed to protect both current and future natural values. All Trust for Nature covenants are in perpetuity, in accordance with the *Victorian Conservation Trust Act* (1972). Thus, the landholder who signs the agreement and all future landholders are required to uphold the stated obligations of the covenant contract. As the Trust state, covenants are intended to '*permanently protect the natural, cultural or scientific values of the land*' (Trust for Nature, 2011a).

Each covenant agreement is unique, created via consultation between a landholder and the Trust, but common features include restrictions on subdivision, limitations on clearing land and the exclusion of grazing animals. Importantly for future discussion, covenants also denote a zone around the home where the restrictions of the covenant do not apply, allowing landholders to pursue other land uses. In order to qualify for a Trust for Nature covenant, a property must have ecological values considered to be worthy of protection. While there are few specific guidelines on what qualifies a specific property, those with 'intact' vegetation communities or threatened flora or fauna are likely to be prioritised. In recent years, the Trust has strategically targeted properties in catchment regions home to vegetation communities that are rare or underrepresented in the protected area system.

Another area of priority for Trust for Nature has been the roll out of their stewardship program, in which a 'Stewardship Officer' (extension/outreach officer) visits covenanted properties on a three-yearly rotation. This gives landholders an additional source management advice, while allowing the Trust to ensure properties are being managed in accordance with the covenant agreement. I expand further on this aspect of the program when analysing how landholders have implemented covenants.

Conservation covenants have existed for many decades in Australia and overseas, and are becoming an increasingly popular conservation mechanism amongst landholders and policy-makers (Farmer et al., 2011; Fishburn, Kareiva, Gaston, & Armsworth, 2009). In Victoria, Trust for Nature signed their one thousandth covenant in 2011 (Trust for Nature, 2011a). Numbers of covenants signed per year have steadily grown from 1987 (Trust for Nature, 2011b), when the Trust signed its first covenant (See Figure 7). The total area under covenant agreement was 42,731 hectares (105,590 acres) at July 1st 2011 (Trust for Nature, 2011a). Similar growth has occurred elsewhere, with easements (similar to covenants, though the area under protection can be sold or donated to a land trust) now the most prominent mechanism for private land conservation in the United States (Morris, 2008).

Covenanted Properties - July 1st 2011

1035 covenants to date

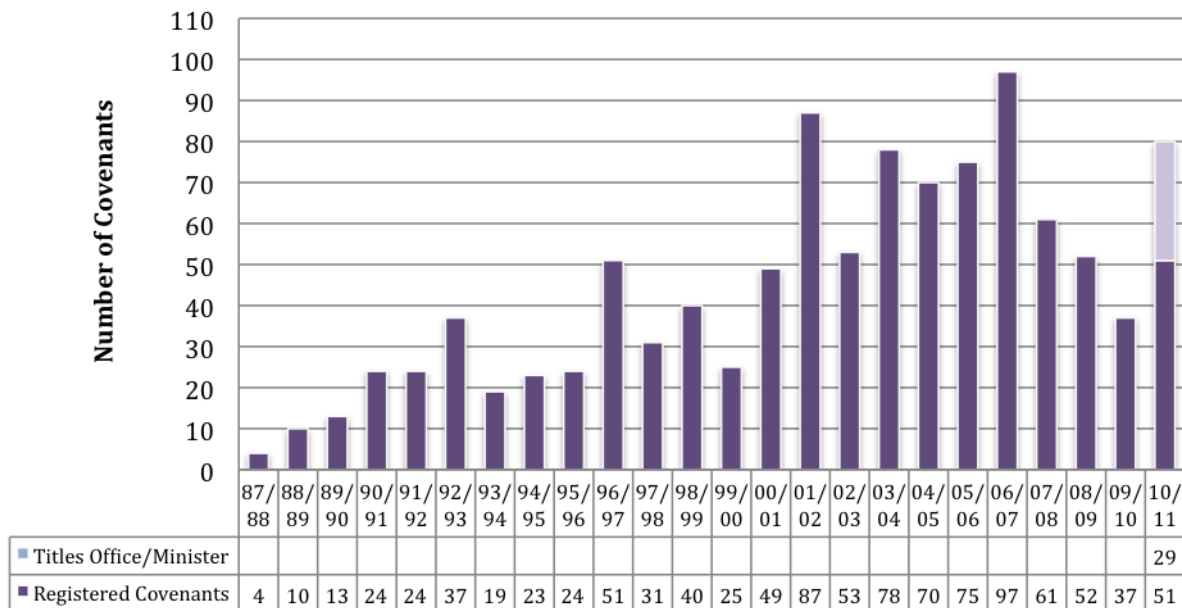


Figure 7. Number of covenants signed in Victoria per financial year, ending July 1st 2011 (Trust for Nature, 2011b). Adoption has generally grown steadily over time.

Increasing demand for rural property by non-farmers has been cited as one of the reasons for the increasing interest in covenanting, especially over the last decade (Fitzsimons & Carr, 2007). Less reliance on the property for income, and greater value ascribed to landscape aesthetics, means covenant land use restrictions are less confronting for those not relying on primary production as their main source of income (Klapproth & Johnson, 2001; Moon & Cocklin, 2011). This hypothesis is supported by the breakdown of covenants by catchment area in Victoria, showing the highest number located in the Port Phillip and Westernport hinterland regions of Melbourne (Table 7 below).

Table 7. Breakdown of covenants in Victoria (2011) by catchment management area; the Port Phillip and Westernport catchment, which encompasses much of Melbourne’s hinterland, has the highest number of covenants (Trust for Nature, 2011b).

Catchment region	Covenant number	Area protected (ha)
Corangamite	80	1875.94
East Gippsland	102	5180.06
Glenelg-Hopkins	76	3248.59
Goulburn-Broken	129	4756.42
Mallee	31	2192.66
North Central	182	7535
North East	51	2648.55
<i>Port Phillip & Westernport</i>	<i>201</i>	<i>3105.32</i>
West Gippsland	111	3937.5
Wimmera	130	11607.32
State-wide Total	1093	46,087.36

Clusters of covenants to the east and south of Melbourne, as well as those around rural centres like Ballarat and Castlemaine to the north-west (located in the Corangamite and North Central CMA, respectively) can be seen in Figure 7.1 below. This suggests strong interest in covenants around rural centres that have traditionally been associated with rural amenity lifestyle migration (Fitzsimons & Wescott, 2001; Mendham & Curtis, 2010). Despite the long history and increasing uptake of covenants as a conservation tool, landholder motives for pursuing covenants remains largely unstudied across all land use contexts (Farmer et al., 2011; Merenlender et al., 2004). In addition, we have limited understanding of why landholders wish to place restrictions on their land use; the widespread assumption is that property owners abhor such restrictions (Kabii & Horwitz, 2006).

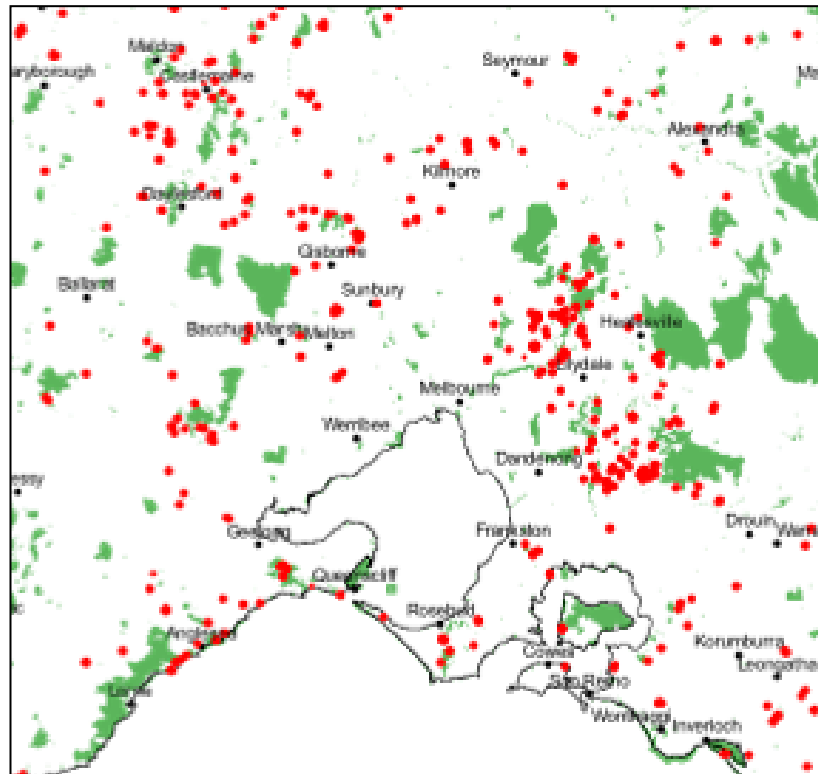


Figure 7.1. Map of Trust for Nature covenants as of 2010 in Melbourne's hinterland (Trust for Nature, 2010). A number of covenants, including large clusters to the east, are within ~100km of Melbourne.

The proliferation of covenants offered by government and land trusts alike has been identified as an example of the devolution of environmental governance (Logan & Wekerle, 2008). In other words, a move away from state-based efforts to purchase land for conservation or pursue strong environmental legislation in favour of individualised, privatised and voluntary efforts (Morris, 2008). While the growth of covenants globally has accorded with the emergence of the neoliberal agenda in the 1980s, it is too simplistic to suggest covenants are solely a tool of neoliberal governance. For example, some landholders have sought to use covenants to address what they view as a failure of government to properly legislate for environmental protection (Morris, 2008). Much of the funding that supports covenant roll out also comes from government sources (Australian Government, 2010). As such, covenants can be viewed as a type of hybrid governance arrangement navigating neoliberal and regulatory agendas (Lockwood & Davidson, 2010).

Navigating these governance mentalities for private land conservation highlights a tension between landscape-scale conservation objectives pursued by land trusts (and the governments that fund them) and the property-based management actions of private landholders. In this sense, while land trusts can target areas for encouraging landholder participation, conservation objectives are still being delivered 'one property at a time' (Anella & Wright, 2004). The voluntary dimension of covenants means private property regimes are pivotal in defining conservation outcomes, as opposed to being defined by the scale of the ecosystem in question. While devolution to property-based management is applicable to all voluntary programs discussed here, issues of ownership, 'control' and landscape-scale conservation benefits are especially pertinent for participants with covenants.

Landscape scale conservation through property-based action?

Given the prominence of personal stewardship as a motivator for management practice (Chapter 5), it was not surprising that the idea of conservation covenants resonated with some of the landholders I interviewed. All six participants with a covenant, and the four who were considering one in the future, had a strong desire to steward their land and protect conservation values on-property. Moreover, four of the six landholders with covenants were actively attempting to encourage others to adopt the practice of 'permanent protection'. These participants were of the view that if others in the region also sign up to a covenant, then through a process of agglomeration, the sum of their individual contributions would contribute to conservation at a larger scale than each individual property:

Claire: Our immediate eastern neighbours... actually bought a bush-block between our properties to add to their property... They're [in] the process... of covenanting that too.

Benjamin (Interviewer): Right.

Claire: So that will make, with the Trust for Nature block further over... a pretty good start for a hub here.

Creating a 'hub' of covenants that would protect a large patch of local remnant vegetation was seen as a way of creating conservation linkages through multiple properties or from their property to nearby public land. From this perspective, advocating the benefits of permanent protection to neighbours with remnant bushland represented a form of shared management practice:

In fact we managed to talk to our neighbour... and she's now put a Trust for Nature covenant on hers as well. We've tried to get our other neighbour to do the same. That would have taken the three [adjacent] bush blocks [under covenant]. (Steve)

Sharing the covenant concept appeared more common than actually sharing information about a specific hands-on conservation action itself. Covenanters suggested they did not often work collaboratively on cross-boundary issues, as they had been 'pretty busy just doing our own stuff' (Jim). Indeed, only Steve appeared continually active in sharing advice about gorse management locally, with Jeff and Liz having made occasional efforts to advise neighbours on controlling invasive fauna. This is not wholly surprising, given the limited exchange of management knowledge happening within communities of proximity (Chapter 5). This limited exchange of management knowledge between covenanters presents an interesting tension between individualised conservation management at the property scale and the desire to contribute to ecological benefits at a landscape scale.

This tension between personal and landscape-scale conservation aspirations suggests that covenants can represent a form of collective or 'social good' action expressed through an individualised representation (Micheletti, 2003). The idea of 'individualised collective action' is useful here for thinking about how citizens can contribute to the collective 'greater good' in a manner that provides for hands-on, individualistic participation. Fair-trade purchasing, product boycotts

and even recycling can all be viewed as part of a move towards more personal expression of political or environmental action (Macnaghten, 2008; Micheletti, 2003). In essence, these expressions of activism question whether ‘people... need collectivism for collective action’ (Micheletti, 2003, p19).

Individualised collective action helps to interpret landholder desires for contributing to a larger scale environmental good through the property-based expression of a covenant. My own and previous research shows that covenants give landholders a practical outlet for contributing to conservation in a way that fulfills amenity aspirations (Bliss & Martin, 1989). Nevertheless, a consciousness of how the covenant mechanism could help to build a ‘hub’ (Claire) of protected land beyond the scale of their property is important for contextualising their own participation. Covenant holders are attempting to contribute to a collective conservation good “in bite-sized chunks’, where the material effects of individual action become visible and enduring’ (Macnaghten, 2008, p81). The property presents a space where ownership gives one a sense of control over those ‘visible’ and ‘enduring’ contributions. Indeed, Liz’s desire to protect her patch was triggered by an aerial photo showing ‘there wasn’t much bush left locally’, so protecting habitat on her property became all the more important. This suggests covenants can be a means for deploying personal stewardship aspirations in a way that challenges the view of private property as only delivering private good outcomes (see Chapter 3) (Blomley, 2004, 2005).

Sharing the *idea* of a covenant with a neighbour, rather than sharing explicit conservation practices, suggests some landholders are encouraging others to pursue individualised conservation action. Participants are conscious of how their neighbours’ discrete participation could have a collective local conservation benefit. Even Jim and Beatrice, who were overtly property-focused in their management endeavours, had advocated covenants to their neighbours:

I’ve tried to convince [my neighbour] to sign a covenant, but I think he is shit-scared of ‘em. (Jim)

Conservation schemes that facilitate individualised action may be particularly attractive to rural-amenity landholders as they facilitate a desire for 'getting on with it' on their property, potentially shunning collective action groups like Landcare (Gill et al., 2010, p 323). As Jim noted, being busy with their own conservation management – their 'own stuff' – had meant limited time for contributing to local conservation groups. This may correlate with a perception of collective action initiatives as requiring an unrealistic commitment of time and energy (Micheletti, 2003). Yet, individualistic action may actually require more effort and dedication than traditional collective representation. However, 'citizens are willing to invest their resources as long as it fulfills them personally' (Micheletti, 2003, p25). The flexibility of undertaking conservation work when and how you choose, and in a space you feel a sense of control over, provides a sense of fulfillment for that effort.

Covenants are not just projecting ecological benefits beyond the spatial constraints of property; landholders are also mindful of the temporal implications of conservation covenants in extending legacies beyond the duration of property ownership.

Projecting landscape legacy into the future

As discussed in Chapter 3, restoration and preservation are inherently temporal pursuits, resulting in engagement with landscape legacies in the practice of conservation. In Chapter 6 I revealed how mediated engagements with such legacies produce dynamic ecologies. Conservation covenants contribute to another element of legacy raised earlier (Chapter 3), through their capacity to project new legacies beyond the tenure of current landholders.

Preserving flora and fauna in perpetuity was a core attraction of creating legacy. However, the ecological legacy preservation objective inherent in covenants was not the only form of legacy landholders sought to protect. Accompanying this motivation was the ability to protect the investment of time and energy in managing the property reflected by their personal contribution to landscape re-

creation. As Steve identified in Chapter 6, he played an active role in ‘taking [the bush] back to... natural’, by facilitating bushland regeneration, removing weeds and revegetating. The ‘negotiated’ dimension of this work aside, covenants present a mechanism for harnessing the stewardship aspirations of landholders by providing a sense of permanence to their work (Fischer and Bliss, 2008). As one of the program coordinators noted, contemplating property-sale protection can be a trigger for signing a covenant, as landholders want to preserve the contribution to conservation they have made through managing their property:

It’s the aspiration to see it protected once they’re gone... landholders have generally looked after their property for a long period of time. And they are very precious about it. (Gareth)

This desire to protect legacy is echoed by the role of external threats like urbanisation and property sub division in triggering landholders to sign up to covenants (Farmer et al., 2011; Lai & Kreuter, 2011) While only one of the participants with a covenant had signed up with thoughts of selling in the immediate future, it was reassuring to other participants to know that protection existed if they did sell. For the four landholders who indicated they might consider a covenant at a later date, the reason given was unanimously identified as protecting their own hard work. As Hannah put it, ‘just so what’s happened [on the property] is maintained’. For potential future covenanters like Hannah, there seemed no reason to pursue a covenant while they had no intention of selling, as they considered themselves committed stewards of their property. The protection offered by the covenant was only useful for limiting future owners’ potentially negative actions.

Beatrice and Jim were in a similar position to Steve, having spent many years encouraging regeneration in their bushland patch. Figure 7.2 depicts another of the experimental plots they established in their covenant area, intended to encourage the growth of small herbs and orchids by protecting them from rabbits and wallabies. Their desire to ‘save’ (Beatrice) their patch was evident in this process of facilitated regeneration. The permanent protection offered by the

covenant gave a sense of security to 'all the work [they have] put in' (Beatrice) to preserve their remnant vegetation.



Figure 7.2. Small fenced plot of vegetation; an experiment to observe whether herbs and orchids will grow without grazing pressure from wallabies and rabbits.

These sentiments from landholders like Hannah, and Jim and Beatrice, showed control and ownership were important considerations. Covenants represented an avenue for reducing the risk that 'all [their] work' (Beatrice) to steward the land would be undone by subsequent owners. Relinquishing ownership of the property represented an obvious loss of control over management and legacy creation. Claire and Jeff were particularly thankful they had successfully navigated the three-year process of adopting their covenant with the Trust:

Claire: We are probably moving towards leaving the place at some stage in the foreseeable [future].

Jeff: That was another reason for the covenant too – to make it permanent.

Claire: ...We're just so glad that we did the covenanting when we did.
Really, really glad.

The importance of permanent protection was reinforced by Jeff and Claire's conservation work on the vegetation roadside near their property. Indeed, it was here that their conservation interest began. However, degradation caused by intensification of local agriculture had dramatically increased weed infestation on the roadside. The perceived unwillingness of the local council to address these management issues gave Jeff and Claire a dim view of contributing to public land management efforts:

So yes, that is another reason why it just seemed easier to target in on our place and just stop fighting the fight out there that just doesn't... it was just getting too hard. (Claire)

This episode showed Jeff and Claire that time invested on projects over which they had limited control was risky in terms of the permanence of ecological benefit. Thus, working 'on our own place' (Claire) and protecting that work through a 'permanent' (Jeff) conservation covenant was a logical means of consolidating their legacy.

In contrast to the belief that covenants could assure legacy preservation, some landholders realised that they could not isolate their properties from the impacts of land management decisions made by adjoining landholders. This realisation compromised the notion of control offered by covenants. While looking over the fence at the soil already washing down from the neighbours' recently sown turnips, Claire expressed a sense of 'helplessness', rupturing the illusion of control she had previously ascribed to focusing management effort on her property.

How 'permanent' are new legacies?

For four out of the six covenanters, land use threats from adjacent properties had led them to question the 'permanency' of the protections of a covenant. Impacts like the movement of weeds across boundaries and downstream erosion had triggered a realisation that their property could not be protected in isolation from the surrounding landscape. Perceptions of perpetual security were further ruptured by the realisation that their covenant did not necessarily facilitate the passing of their knowledge to the next property owner. This emphasised the inseparability of material landscapes from the dynamics underpinning their creation – the 'permanence' of the ecologies fostered by landholders only exists when they remain in the landscape. This is especially true when the maintenance of these 'natural' landscapes requires so much active input (Low 2002). As such, several landholders realised that their experiential knowledge would need to be passed on in some form if their landscape legacies were going to extend into the future.

In order to counter perceived risks associated with property sale, landholders were considering novel ways of passing on the management knowledge they had acquired. Ken, who had future plans for a covenant but had yet to adopt one, spoke of 'progression planning not succession planning' when selling his land. Acutely aware of the experiential knowledge he had accrued over the space of a decade, Ken suggested he would want a buyer who would let him work for free as a property manager for a while, enabling knowledge exchange to take place. He stated, 'I've learnt so much about this place and it would be good to pass [the knowledge] on'.

The protection of a covenant as a legally binding constraint on land use brought a great sense of relief, but also a strong self-awareness that changing ownership could disrupt legacy preservation. The channels for transitioning management knowledge are not as well established as the mechanisms for preserving the physical landscape itself. For Ken, disjuncture between the social and ecological dimensions of protection and management through covenants produced some novel ideas for transferring knowledge to the next property owner.

Relationship between scheme intention and landholder implementation

The implementation of Trust for Nature covenants showed a subtle but important difference between the scheme's objectives of protecting ecological legacy, and participant desires to preserve landscape legacy. Several participants were seeking to protect ecologies as well as their personal stewardship efforts embodied in the physical landscape. Accompanying the wish to protect stewardship efforts was a growing awareness of the need to pass on experiential knowledge. However, these personal and mediated aspects of landscape legacy and stewardship are difficult to protect or pass on through a covenant. Indeed, weed spread from adjoining properties had led landholders to realise that covenants alone were no guarantee for protecting the landscape legacy they had created. Thus, while covenants appealed to the landscape legacy preservation motives of participants, they can struggle to deliver such outcomes as a stand-alone policy mechanism.

Participants considering a covenant in the future spoke of the divergence between scheme intentions and landholder perceptions. For example, Hannah indicated she would only consider a covenant when selling her property, to protect 'the work' she had done there. The potential downside of this for Trust for Nature is that some landholders may see no value in the scheme while they actually reside on the property (Harrington et al., 2006). Yet, the Trust seeks to assist landholders in their management practices, through their Stewardship Scheme and other outlets.

Interestingly, perceptions of Trust for Nature covenants as solely a protection mechanism were inhibiting participation on the part of some landholders. In only recognising the protection aspect of the scheme, some landholders who were not involved in the scheme considered it likely to impinge on their non-conservation land uses, and threaten their properties' re-sale value. While such participants may have enjoyed visits from stewardship officers or other benefits of the scheme, their view of the inflexible nature of a covenant meant it did not appeal. This attitude was also encountered by Harrington, Lane, and Mercer (2006, p201) in north-west Victoria: 'some landholders may not be aware of the

intent and flexibility of covenants which were described by Ned as, ‘a change of land management regime, rather than locking land up’. Given participants like Alan and Pauline, and Hannah, viewed covenants as not relevant to their needs, yet asked me questions about management issues as we walked their properties, the prospect of visits from a Stewardship Officer may have been attractive to them. I discuss this point further when considering policy recommendations for Trust for Nature covenants in Chapter 9.

Leaving aside the disconnect around legacy preservation, covenant objectives accorded closely with the processes that informed practices and the outcomes of those practices discussed in Chapters 5 and 6. Covenants were adopted by participants with both active (4) and passive (2) stewardship dispositions (see Table 5). While the scheme itself did not appear to challenge existing dispositions, different elements of the scheme may have been more appealing to different dispositions. For example, those with active dispositions were primarily the ones who wanted to protect their stewardship efforts. On the other hand, Liz and Rob (passive dispositions) were more conscious of the need to protect their patch from clearance by future property owners. There was no indication that adopting the scheme had resulted in a shifting of existing dispositions.

Covenants also accorded with amenity aspirations related to individualised on-property management. The ‘domestic zone’ permitted by the covenant around the home meant participants rarely felt constrained by this aspect. However Jim and Beatrice, and Claire and Jeff, noted that it was deliberation about where the domestic boundary should be that delayed the signing of their covenant. This showed that having a domestic space for recreation, fire protection and vegetable gardens was an important consideration. Interestingly, Gareth (extension officer) felt that giving landholders sufficient space around the home for non-conservation activities was very important. He felt that some of the early covenants in the 1980s and 1990s gave landholders little space for such pursuits, making it difficult for landholders to maintain their covenant obligations. As such, ensuring participants have a domestic space appears to be a lesson the Trust has already learnt through trial and error.

Finally, the covenant concept accorded closely with the amenity value of stewarding the property as 'owned' space (Chapter 5). However, in an example of a novel policy adaptation, this personal stewardship dimension was being linked to wider social good conservation aspirations. While covenants are grounded at the property scale in terms of the space they protect, some landholders are conceptualising them as discrete, personal contributions to conservation at a larger scale. This shows how private property can be framed in public good terms, reflecting the importance of a nuanced view of ownership (as detailed in Chapter 3) (Blomley, 2004). Participants were advocating covenants to others in their region, to help achieve a 'hub' (Claire) of protected properties, with two landholders achieving some success in this regard.

The ability to continue with on-property management while conceiving of this wider landscape objective meant advocating for covenants aligned with amenity values. Despite being a novel program adaptation, this practice had synergies with the landscape-scale conservation benefits Trust for Nature seeks to achieve in complementing conservation reserves on public land.

Land for Wildlife: communities of practice and the promotion of active stewardship dispositions

Introduction

In this section I begin by outlining the key objective of Land for Wildlife as a voluntary conservation scheme. I note the broad and flexible policy instruments associated with this scheme, followed by a brief background to its roll out – both generally and in the context of rural-amenity migration. These aspects of the scheme are important, serving as a basis for comparing program intentions to on-ground implementation.

The first implementation outcome to emerge from this analysis centres on the role of Land for Wildlife in encouraging the individualised conservation interest reflected by amenity values. I show how this scheme appeals to the values of owning amenity, seclusion and good neighbourly relations outlined in Chapter 5. Practices like not revealing participation in the scheme to neighbours are used to exemplify this means of adoption. However, the scheme's newsletter demonstrates how the external social relations (communities of practice) are connecting landholders to valuable knowledge and support from beyond the property parcel.

Second, I examine how the extension services offered by Land for Wildlife have the capacity to encourage active stewardship dispositions, overcoming the type of reluctant passive dispositions expressed by Sally in Chapter 5 (page 153). This was made possible by encouraging conservation actions that accorded with amenity aspirations, rather than challenging or confronting those aspirations. This section also identifies how Land for Wildlife participation can serve as a reminder of one's stewardship responsibilities.

To conclude this section I discuss the alignment of scheme objectives with their on-ground implementation by participants. The broad and flexible nature of the scheme is shown to create room for landholders to pursue conservation in line

with existing amenity values. This can make the influence of Land for Wildlife difficult to discern, even for participants. However, that Land for Wildlife's flexible and non-confrontational approach has affected management practices in subtle but important ways in line with the overarching objectives of the scheme.

Background and scheme objective

Land for Wildlife is a non-binding voluntary conservation program offering advice and assistance to landholders with an interest in conserving flora and fauna on their property. The program began in Victoria in 1981 as a partnership between the State government and the Bird Observers Club, in order to recognise the environmental stewardship of private landholders. As of 2012, the program has over 6,000 registered properties in Victoria, covering over 40,000 hectares of private property (Johnson personal communication 16/03/12). The popularity of Land for Wildlife has been partly ascribed to the 'non-binding' nature of the program. Landholders can withdraw at any time, there is no legally binding restriction on land use dictated by participation and the agreement runs with the landholder and not the land. The lack of a legally binding agreement, and the less stringent eligibility requirements, are the main points of differentiation to a Trust for Nature covenant. This approach has seen Land for Wildlife likened to a 'club' for landholders who may have an interest in conservation and wildlife (Williams, 2004). Figure 7.3, adapted from the Department of Sustainability and Environment (DSE, 2009) website, outlines the program's institutional arrangements.

Land for Wildlife – Institutional Arrangements Defining the Program

Voluntary – the commitment by the landholder to participate in the scheme can be withdrawn without penalty at any time

Legally non-binding – Participation in the program does not attract any legal or planning restrictions on the land, meaning existing land uses can be largely maintained

Support network – landholders have access to extension officers and community volunteers for advice. All properties are visited to assess biodiversity assets, to ensure eligibility. The network can help to organise field days, open property days and training sessions

Broadly eligibility – productive agricultural land, amenity and lifestyle properties, bush blocks, schools, gold courses, municipal and Commonwealth land and many other property land tenure types are eligible to enroll in Land for Wildlife

Group registration – a collective of smaller bush blocks, or adjoining rural properties can enroll as a single entity, to address local wildlife protection at a whole of landscape level

Newsletter* – landholder receives a free monthly newsletter as part of their enrolment in the program. The newsletter contains contributions from other program participants outlining land management advice they may have, or challenges they may be encountering

Signage – landholder receive a distinctive green sign to place at the front of their property to denote their Land for Wildlife membership

Eligibility – while specific eligibility criteria are somewhat subjective, landholders already undertaking some form of conservation-related land management are likely to be accepted automatically. Those not doing so yet, but with an interest in joining, can be advised how they might be able to ‘work towards’ full membership, by undertaking certain conservation works (weeding, fencing or revegetating for example).

Figure 7.3. The institutional arrangement of the Land for Wildlife program (DSE, 2009).

*newsletters are now circulated once or twice a year on an ad hoc basis, following a scaling back of resources for the program.

While the objectives of Land for Wildlife are broad and diffuse, the key tenet is encouraging and supporting private landholders to ‘provide habitats for wildlife on their property’ (DSE, 2009). This aim is given more direction by identifying private property that may be ‘managed primarily for other purposes’ (DSE, 2009) as a target for implementation. The subtext here is that Land for Wildlife is an inclusive initiative seeking to attract a variety of people, including those with marginal or formative interest in conservation. This objective helps to contextualise the non-binding and broad eligibility that characterises the scheme. As I will explain later, this flexibility is important for understanding how participants implement the scheme.

A major attraction of the scheme is landholders' ability to display their conservation interest to the community through the Land for Wildlife sign (see Figure 7.6) (Smith, 1998; McDonald, 2001). The newsletter has been similarly prized, especially as it allows landholders to write in and ask questions of other participants, or write about a particular management activity that has proven successful.

For the first 11 years of Land for Wildlife, extension was not part of the scheme (Smith, 1998). When extension was introduced in 1990, uptake of the program grew in accordance with its increasing profile in the community (Figure 7.4)(Platt & Ahern, 1996). Having extension officers on the ground who were familiar with their associated region was as an important component of this growth (McDonald, 2001).

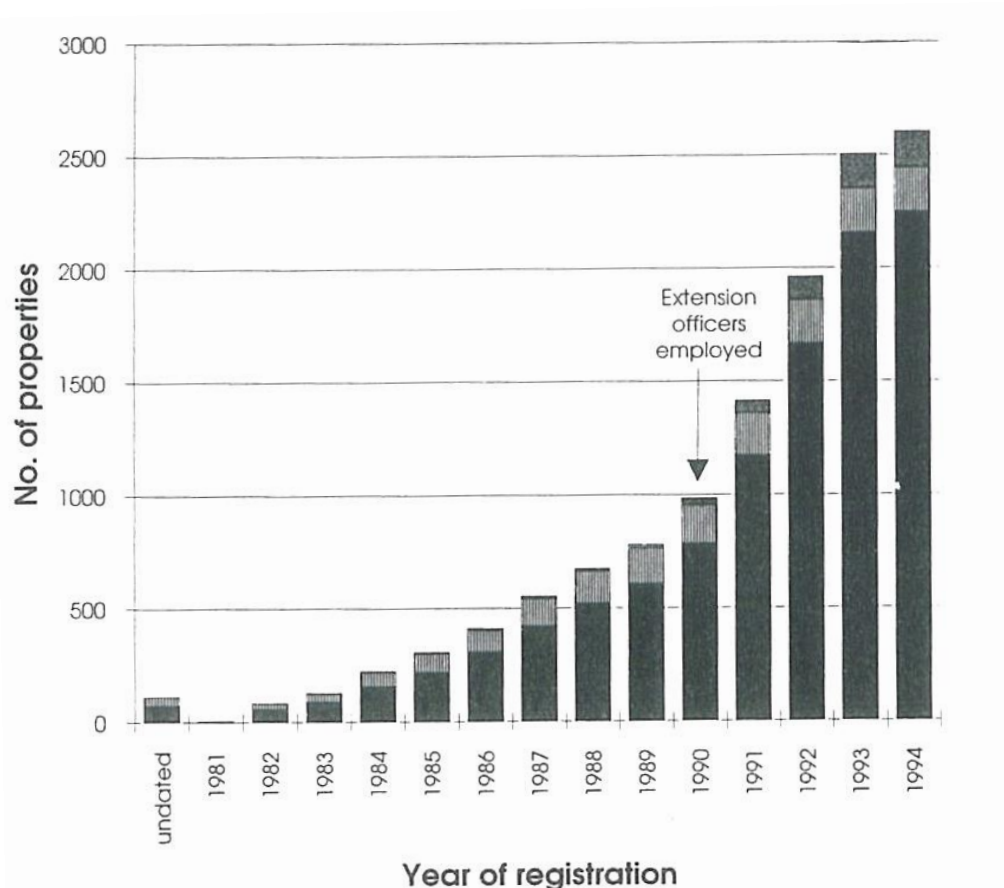


Figure 7.4. Increased participation accompanied the introduction of extension services in the Land for Wildlife program (Adapted from Platt and Ahern, 1995).

Following a reduction in funding for the scheme around 2000, extension efforts were scaled back. Little active recruitment of new participants occurred over the past decade, as regional officers have limited capacity beyond servicing existing participants. Around the time Land for Wildlife was scaled back, the Victorian Government began experimenting with market instruments, utilising a reverse auction tender process to pay landholders for delivering conservation outcomes on private land (expanded upon in the EcoTender section below). Despite the 'de-emphasising' of Land for Wildlife, new applicants continue to trickle in. As of 2012, the DSE website lists 11 part-time Land for Wildlife officers located in different regions across the state, including the Statewide Coordinator (DSE, 2009).

Somewhat perversely, the decline of the scheme in Victoria has coincided with its spread and implementation in nearly all other Australian states. While run differently in other locations – Queensland has a catchment and local council model of delivery, while the Northern Territory scheme is run by a consultancy firm – it has continued to blossom outside of its foundation state. Therefore, in spite of declining government support, strong continued participation in Victoria and ongoing expansion in other states means Land for Wildlife is an appropriate scheme for exploring how suasion-type programs are operationalised by landholders.

Implementation in rural-amenity landscapes

Though few reports have been published in the last decade, much of this program analysis has suggested Land for Wildlife properties are predominantly smaller than Trust for Nature covenant properties, represent lesser quality patches of remnant habitat, and are found at greatest density around the fringes of Melbourne and larger rural centres (Fitzsimons and Wescott, 2001). Indeed, mapping of Land for Wildlife properties in Victoria highlights large clusters surrounding Melbourne (Figure 7.5 below). As noted in discussions with policy staff in the private land conservation area prior to my field research, there has always been a perception of strong enrolment coming from 'tree-change'

landholders around Melbourne. The map below highlights the clusters around the Mornington Peninsula, Yarra Valley, and Dandenong Ranges to the east (green ring) and Ballarat, Castlemaine and Bendigo to the west (blue ring).

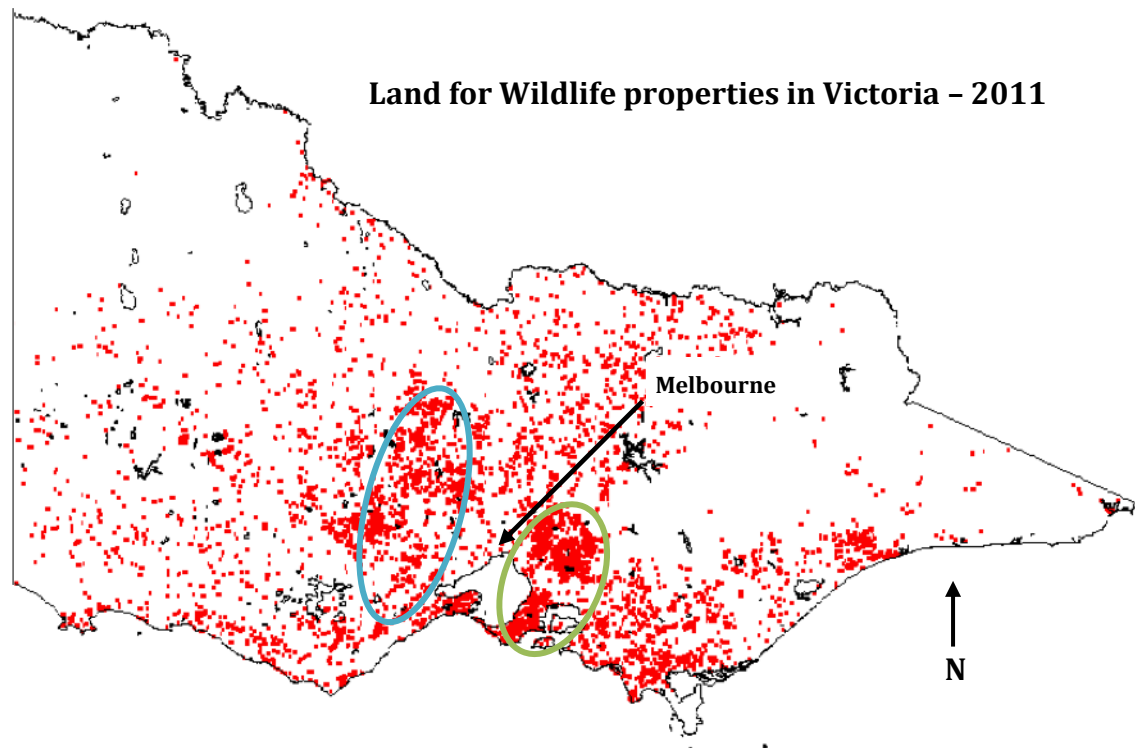


Figure 7.5. Map of Land for Wildlife properties in Victoria. Notable clusters of properties can be seen in the coastal and hinterland regions of Melbourne, and around larger regional centres identified as high amenity areas.

Non-binding conservation schemes like Land for Wildlife have proven popular across the globe, largely due to their limited imposition on property rights and the autonomy given to participants (Cocklin et al., 2007; Doremus, 2003). Moreover, broad eligibility requirements mean smaller properties of 'lesser' conservation value are able to join, facilitating participation for landholders who do not qualify for other conservation schemes (Smith, 1998). Given the potential for stewardship motives to be part of wider amenity aspirations (Chapter 5), it is reasonable to suspect such a program would appeal to amenity migrants. The following section probes the role of existing amenity values in the operationalisation of Land for Wildlife by participants.

Pursuing individualised conservation ‘on-property’

As posited above, the appeal of Land for Wildlife in allowing participants to pursue stewardship individualistically was strongly evident amongst interviewees. Non-binding participatory requirements meant landholders rarely had to prioritise stewardship over non-conservation amenity values. The institutional arrangements of Land for Wildlife, including the property visit by an extension officer and the information provided to landholders through the newsletter, facilitated individualised management on-property. By this I refer to management as a personal or recreational activity conducted by the landholder. This brought together a desire to steward the ‘owned’ space and maintain the seclusion and privacy of property whilst avoiding conflict with neighbours. Here I outline two ways landholders operationalised the Land for Wildlife scheme to demonstrate how this preference for privacy played out through management. These are; (1) a limited interest on behalf of landholders to form management groups, and (2) the decision by some participants not to display the Land for Wildlife sign at the entrance to their property.

Difficulty establishing Land for Wildlife groups

In response to the reduction of extension support to landholders in the late 1990s, Land for Wildlife staff made a concerted effort in the years that followed to encourage participants to form local groups (NRE, 1999). The idea was that landholders could share knowledge and resources at a local scale, helping to fill the void left by the reduction in extension. This strategy was promoted through the newsletter (July/August 2001) and noted as an action in regional planning strategies (period 1999-2002) (NRE, 1999). The department was prepared to assist landholders to form groups through mail-outs and support for field days on individuals’ properties. However, Gareth (extension officer) noted little interest in such initiatives in his district:

I think my experience is that... there isn’t much interaction [between program participants]... I remember when [my predecessor] was trying to establish working groups in local areas... basically there was no interest. So I think it’s like a lot of voluntary schemes... the priority is not there to

be doing anything except what is on your land. (Gareth – extension officer)

The motivation for working primarily ‘on your land’ was echoed specifically by four Land for Wildlife participants, who were aware of the potential for field days and groups but were ‘doing our own stuff’ (Beatrice). The concept of Land for Wildlife groups did not align with amenity values that connected conservation interest to participants’ own patches of bushland, and what species occupied that habitat. This disconnect was discussed in Chapter 5 where I noted that the personal aspects of stewardship can be prioritised over the social good dimensions (Cadieux, 2011). Indeed, lifestyle-orientated landholders tend to be ‘focused on their own land and undertaking restoration efforts that suited their own purposes and values’ (Gill et al., 2010, p328).

Landholders not displaying the sign

The Land for Wildlife sign is a significant component of the scheme as a public expression of one’s conservation ethic. Some landholders display the sign in an effort to encourage neighbours to enquire about the program, as was the case with William (Figure 7.6). All of the Land for Wildlife participants I interviewed displayed their signs on the front fence or property gate. The sign has come to be the main symbol of the scheme, and an important part of raising awareness about wildlife conservation amongst the community (McDonald, 2001).



Figure 7.6. While many landholders enjoy displaying the sign, some chose to deliberately keep their participation private by not putting it up at the front of their property.

Given the symbolic dimensions of the Land for Wildlife sign, it was surprising that both extension officers I interviewed mentioned they had encountered participants who did not wish to display it:

Actually we've got a number of landholders who... don't put the sign up. So, the sign might sit in the shed or something like that. Some landholders... love the signs... other people, they just really want the connection with the department and other landholders, and the sign is less meaningful. (Gareth)

By not displaying the sign, landholders are concealing their conservation values from the neighbourhood. Appearing 'too green' (Kathy) may not be considered the best way to endear oneself to neighbours, especially when in-migrants value privacy and good neighbourly relations:

There are a few people that don't even want the sign, because... they don't want to advertise to their neighbour that they are interested in the environment. (Kathy – extension officer)

Land for Wildlife participants not displaying the sign may also feel their participation in the program is their business, and trying to influence others is not their objective. This is familiar to the sentiment expressed by some participants in Chapter 5 – they stayed out of their neighbours' business, so they expected their neighbours to stay out of their business (Fischer & Bliss, 2008; Yung & Belsky, 2007). While Maddy was not a Land for Wildlife participant, she mentioned that when neighbours asked her for management advice she prefaced her suggestions with "Your land is your business". Despite wanting to encourage others to undertake revegetation projects, it was important for Maddy not to undermine the autonomy she believed accompanied property ownership; Land for Wildlife participants who do not display the sign may hold similar views.

The experiences of participants and extension officers described above suggest Land for Wildlife occupies a different niche in fulfilling individualistic stewardship aspirations than Trust for Nature covenants. Land for Wildlife was still a means of expressing stewardship, but the non-binding nature of Land for Wildlife meant it had appeal for people who just wanted to 'dip their toe' (Kathy) into conservation practice. Dipping a toe into management expressed itself as a property-based focus, with little interest in forming groups and an occasional desire to conceal participation from neighbours. From the outside, this appears to be a type of conservation pursued away from the social encounters shaping practice seen in Chapter 5. However, an interesting paradox emerged for Land for Wildlife participants that revealed how conservation 'on-property' often relied on non-local relations (communities of practice) and personal encounters structured by the scheme itself.

Communities of practice facilitating individualised conservation

Land for Wildlife represents a critical social and institutional relation for catalysing the pursuit of management as an individualistic practice. Despite the seemingly isolated experiences of participants presented above, a closer analysis reveals how the scheme worked much like the communities of practice in Chapter 5 in that external communities informed individual management effort and interest. Here I discuss how participants rely on 'the connection with the department and other landholders' (Gareth) offered by Land for Wildlife for practicing land management.

Many of the direct and indirect communications that are structured by Land for Wildlife could be described as one-off or 'weak' inter-personal encounters (Moore & Westley, 2011) due to the infrequency of interactions between the scheme and landholders. But in the context in which they were delivered, these weak linkages still had the capacity to influence management practice. The Land for Wildlife newsletter was one such element of the scheme that facilitated social interactions that contributed to management.

The Land for Wildlife newsletter, though increasingly infrequent, proved very popular amongst participants. The mixture of stories about topical conservation issues, letters from other landholders from across the state regarding management issues, and practical advice from program staff, appealed to all participants. Alan and Pauline mentioned that a story by a fellow participant triggered the practice of piling up dead branches around remnant paddock trees to stop trampling by cattle. Pauline commented on the simplicity of the idea for 'keeping stock off remnant trees' (Pauline), without the need for fencing. It was not something they would have considered doing until she read about it in the newsletter. This idea appealed to Pauline because she was immediately able to connect the advice to her management context.

As an extension officer, Gareth felt the anecdotes from other landholders contained in the newsletter were in some ways more valuable than the information provided by ecological professionals:

It's getting back to that "here's a conversation about what's happening on someone's land" kind of thing... - Oh, that's what they do there, I'll have a crack at it here on my land". So it's far more – it's not that it's more practical – but you can relate to it I think. (Gareth)

The fact that you can 'relate' to the person who is given advice is clearly important, accentuating the notion that like-minded landholders can be a valuable source of knowledge (Tarnoczi & Berkes, 2009). This may be especially useful if surrounding neighbours are not forthcoming with advice, as mentioned in Chapter 5. An example of a management activity born out of this landholder-to-landholder connection was the construction of nesting boxes for birds and bats. Letters on how to build and install these boxes from scrap timber had been picked up by three different Land for Wildlife participants.

Identifying the contributions of the newsletter to management often took some time. In the cases of William, Dan and Beatrice particularly, it was not until we walked the property that evidence of Land for Wildlife influence emerged. For example, Beatrice enjoyed the newsletter because it could 'tell you about native grasses or swamp rats', but did not immediately connect this to a resultant management action. Yet, upon walking around Jim and Beatrice's property, the first features pointed out were the burrows and diggings attributed (correctly, from my observation) to the presence of swamp rats (*Rattus lutreolus*) (see Figure 7.7).



Figure 7.7. This area was no longer mown following the discovery of swamp rats, with the planting of shrubs and grasses to protect burrows probably inspired by an article in the Land for Wildlife newsletter.

The area shown in Figure 7.7 was deliberately left un-mown, and had been planted out with additional native grasses and shrubs to protect the swamp rats' burrows. Beatrice suggested the article in the newsletter that prompted this planting. It seemed knowledge gained from the newsletter permeated the practices and ideas of landholders slowly and almost unconsciously on occasion, meshing very closely with existing stewardship dispositions.

Beyond practical management advice, the newsletter offered a form of comfort to some participants. Reading about the challenges and experiences of other landholders made participants realise they were not alone in terms of conservation interest or management. This was especially important as landholders could be surrounded by neighbours who were unsympathetic to conservation ideas. Given the patchwork of land use aspirations in amenity rural landscapes, Land for Wildlife occupied an important niche for maintaining enthusiasm. The sporadic arrival of the newsletter in the mailbox served as a

tangible connection to a practice community, keeping participants engaged. For Hannah, the newsletter had limited practical value in guiding land management, but it was 'just interesting to see what other people are doing on their properties and some of the wildlife. Nice contact.' This sense of belonging was also important for Kelly who participated in a pilot interview. The way he succinctly encapsulated the importance of feeling connected to people facing similar challenges spoke to the feeling of comfort other participants struggled to elicit:

I think the other thing [with the newsletter] – it, it's always nice to hear the views of other people, and to hear that you're not the only person that's involved in this. (Kelly – pilot interview participant)

Not feeling like 'the only person' with a conservation interest was especially important for Kelly as he had neighbours on either side who were not interested in conservation, despite having large patches of bushland on their properties. The newsletter provided a sense of belonging to a community of people who were enthusiastic about the environment, making his isolated efforts seem more worthwhile. This paralleled Gareth's view above of landholders being able to 'relate' more meaningfully to management advice in the newsletter when it is delivered by fellow landholders and not always conservation 'experts'.

Through the newsletter, the Land for Wildlife scheme provided a practical management outlet for existing conservation interest. Moreover, beyond imparting practical management advice, the newsletter reassured participants that others were enthusiastic about conservation. This feeling of community, despite its impersonal and dispersed nature, provides subtle clarification to assertions that amenity landholders are pursuing a type of individualistic nature experience that is isolated and 'away from the social' (Cadieux, 2011, p249).

In the next section, I explore how Land for Wildlife can encourage experiential learning and more intimate nature encounters by promoting active management dispositions.

Encouraging active stewardship

A key challenge for Land for Wildlife in amenity regions has been translating aesthetic appreciation of the environment into active management. As has been noted previously and discussed in Chapter 5, the 'scenic aesthetic' offered by rural landscapes can be a powerful amenity value (Gobster, 1999). Conducting active management of bushland, or simply experiencing nature in a 'hands-on' fashion, can be secondary to this more detached appreciation of visual amenity (Fischer & Bliss, 2008; Erickson, 2002). As Gareth observed during his extension role:

It's not at all uncommon for people to be really enthusiastic about the fact that they are purchasing a bush block... but there might be some weed threats... they just have no understanding of. They just look at [the bush] with this sort of awe. I don't know, sort of an image I suppose, not necessarily down to the detail. (Gareth)

A consequence of the construction of this bushland 'image' may be a lack of awareness of management need, or hesitation about undertaking management work that could compromise visual amenity (Gobster, 1999; Knoot et al., 2010). At a more fundamental level, however, looking at the bush with 'awe' also hints at the potential for landholders to disassociate themselves with the 'natural' spaces on their property. We saw this with Sally's reluctance to actively manage her bushland in Chapter 5 stemming from a belief that she did not know 'the right way' to manage the bush, so she had best stay out of it. While Sally was the only participant who held a reluctant passive disposition, the experiences of extension officers in identifying people with similar mentalities suggest this is common. The Land for Wildlife extension process appears suited to reducing this type of reluctance to engage in hands-on experiences of nature by refuting the idea that management is solely the realm of the expert.

By visiting the properties of landholders who express interest in Land for Wildlife, extension officers can address any trepidation people have about management. Gareth mentioned that as he walks a property with a landholder,

he tells them about a time when he mistook a native plant for an invasive weed on his own property, and proceeded to pull out a large patch of this particular species. The objective was to highlight that making mistakes was part of the learning process no matter what your level of existing knowledge, and not something to be feared.

Gareth's actions could rightly be seen as his own personal approach to extension and not reflective of the program itself. However, Gareth's practice echoed management advice from the newsletter, which frequently carries stories designed to get people involved in managing their property landscape. For example, Kerry (extension officer) mentioned that an existing Land for Wildlife participant had cut a steel drum in half and filled it with water for a bird bath, having read of a landholder who had done the same thing in the newsletter:

I think people often think that there's a way of doing things, and if I don't do it that way... or I can't [do it that way], then I may as well not do it.
(Kerry)

By debunking the idea of the bush as a hostile space in which non-expert practitioners do not belong, Land for Wildlife offers amenity migrants a way to pursue management. In other words, the scheme offers an avenue to connect stewardship aspirations to management tasks that appeal to amenity values. The communication of 'warm and fuzzy' (Dan) management practices, like technical notes for building nest boxes, connects with personal desires to make the property space a habitat for local wildlife. Six of the eight Land for Wildlife participants spoke enthusiastically about nest boxes, with five of those individuals having installed them on their property. Land for Wildlife can give landholders a form of permission to create a more intimate and integrated dwelling – permission they may not have given to themselves. By easing concern about making a management 'mistake' and encouraging practices that accord with amenity values, Land for Wildlife can encourage hesitant landholders to engage in experiential learning practices. This may help landholders with reluctant passive dispositions to become more active land managers.

Affirming uniqueness – reinforcing stewardship responsibility

Gareth (extension officer) mentioned that some landholders who sign up to Land for Wildlife were already 'very knowledgeable' about conservation and did not need much help from him to manage their land. Three Land for Wildlife participants specifically indicated that management assistance from their regional extension officer was either unnecessary or not what they were looking for from the program. Nonetheless, interaction with an extension officer served to affirm the conservation value of their patch and helped to motivate their continued management practice.

We weren't looking for anything out of [Land for Wildlife]. We were just – it's just like more an affirmation that this area is worthwhile... keeping as it is. Really, that's what we were looking for and that's what we got.
(Lauren)

Participation in Land for Wildlife had helped to consolidate in Lauren's mind that at least one particular section of her bushland property (pictured in Figure 7.8) was unique and worthy of some form of recognition; qualifying for Land for Wildlife registration provided that recognition.



Figure 7.8. The ephemeral creek line that once had an intact canopy supporting many possum drays (nest built of twigs and leaves); the Land for Wildlife extension officer highlighted it as a unique part of Lauren's remnant bushland.

Having been accepted into the program, Lauren put the Land for Wildlife sign on her front gate. The sign reminded her of the ecological value of her patch every time she passed it. While functioning as an outward expression of conservation stewardship, Lauren's story showed how the sign could serve as a personal reminder of the stewardship responsibility associated with participation in the scheme. For Lauren, the scheme was not necessary for triggering an active stewardship disposition, but maintaining the associated active practices amidst the other demands of owning rural property. Rob, who had long suspected his bushland was locally important, outlined similar thoughts:

We appreciated the bush that we'd bought and knew it was of special significance. (Rob)

Rob found a small native marsupial on his property shortly after purchasing it, and with help from a local wildlife shelter, identified it as an antechinus

(*Antechinus spp.*). This event reaffirmed Rob's perception of his property's significance, and resulted in an application to join Land for Wildlife. Despite being an absentee landholder of the property for many years, and only recently returning full time, Rob and his wife had tried their best to maintain the habitat values of their property. Knowing their property had been accredited as 'Land for Wildlife' reinforced the need to keep struggling along with management, even if they had trouble finding the time. In this sense, both Lauren and Rob had interpreted acceptance into the scheme as a form of responsibility to maintain their stewardship responsibilities.

Relationship between scheme intention and landholder implementation

The inherent flexibility of Land for Wildlife in terms of its limited binding requirements for participation means it rarely conflicts with existing amenity values or stewardship dispositions. Indeed, it accords closely with key amenity values around focusing on the property space, maintaining seclusion and avoiding conflict with neighbours. In this sense, Land for Wildlife's institutional arrangements reflect the type of scheme that can appeal to landholders who undertake management as a personal or recreational pursuit (Farmer et al., 2011; Fischer & Bliss, 2008; Langpap, 2006; Urquhart & Courtney, 2011).

Land for Wildlife has apparent value for encouraging active stewardship for those participants who are in awe of their bushland, challenging a type of reluctant passive stewardship disposition. It does this by encouraging management practices that accord with existing amenity values. Small, tangible tasks, often associated with increasing habitat for wildlife or restoring vegetation, tap into the desire to steward a property, and for that property to make a contribution to conservation (in this sense, it helped to facilitate learning about 'my patch'). It also encourages landholders to develop their own experiential knowledge through nature engagement – something they may have been hesitant to do through fear of making a management mistake. Moreover, the forms of advice and knowledge exchange – primarily through the newsletter

and the extension visits – mean seclusion or neighbourly relations are not compromised.

At the same time, Land for Wildlife does not challenge more durable passive dispositions like those held by Hannah, William, Liz and Lauren. The non-binding dimensions of the scheme do not compel participants to undertake active practices that would challenge their existing dispositions. In a similar vein, the scheme did not conflict with emergent dynamic ecologies. The acceptability of domestic space was not challenged, as the scheme was only seen to apply to areas of the property where conservation was the focus. Similarly, the emergence of re-interpreted landscape legacy was not challenged by the scheme due to its broad eligibility criteria. For example, William felt his non-native ecologies that served as important wildlife habitat tied in with the objectives of Land for Wildlife.

The accommodating nature of the scheme meant few challenges arose between existing practice and ecologies and the expectations of the scheme. The difficulty, however, is that such flexibility can mean the program blends into the background, making its influence difficult to detect. It could be suggested this is indicative of a scheme that offers little to participants, and is struggling to achieve conservation benefits for wildlife. However, it became evident through property walks and extension officer interviews that Land for Wildlife was very subtle in permeating the ideas and practices of participants in ways participants rarely reflected on consciously. Challenging weakly held passive dispositions and the comfort provided by the newsletter's community of practice were prime examples of this.

It could be argued that the objective of Land for Wildlife in appealing to landholders, for whom conservation may not be a central goal, means the program is being adopted as intended. Such an objective means ecological benefits that happen around agricultural or amenity land uses are acceptable as long as some conservation outcome is realised. Despite this observation, some scheme outcomes represent novel forms of adoption on the part of participants.

Below I raise a key negative unintended outcome, followed by three novel positive outcomes.

The key unintended negative of the Land for Wildlife scheme is that its unassuming and non-confrontational style may have resulted in some participants under-appreciating its value. While I have shown that it can have a beneficial impact without participants being conscious of it, this may mean participants overlook it as a source of knowledge or assistance for management. Participants like Hannah and Lauren felt the scheme offered them nothing in terms of knowledge, but both participants asked management questions of me as we walked their properties. The newsletter or an extension officer may have been able to answer these queries. Moreover, it was in probing how management practices like Jim and Beatrice's swamp rat restoration activities came about that the probable role of Land for Wildlife came to light.

It could be argued that some of the primary benefits of Land for Wildlife discussed above are unintended benefits of its flexible arrangements. The scheme creates room for the conservation benefits that landholders have leveraged from the scheme, without directing them through specific policy instruments. It does this by allowing space for existing amenity values and stewardship dispositions to be expressed.

The facilitation of communities of practice is an example of this novel adoption process. In exploring how Land for Wildlife is implemented by participants, I have shown how communities of practice appear vital in rural-amenity contexts; from the perspective of learning about management, but also in knowing other people are dealing with similar challenges. In this sense, the newsletter has the unintended benefit of providing social and emotional support. However, the sense of community connectedness extends from an individual desire to find out more about the flora and fauna on private property and to maintain property seclusion.

Another example of the subtle and potentially unintended positive impact of the scheme was the role of the Land for Wildlife sign. While the sign is intended to be a symbol of a conservation ethic and advertise the program, it also revealed itself as a reminder of stewardship responsibility for some participants. Conversely, some landholders did not display the sign to avoid creating conflict with their neighbours, reducing the exposure of the program in the community.

The implementation of Land for Wildlife reveals some interesting and potentially unanticipated outcomes. However, the program is malleable enough so that landholders do not have to challenge the intention of the program to achieve their management objectives.

EcoTender: preserving dynamic ecologies while restoring ‘pure’ nature?

Introduction

In this section I aim to show how the implementation of the EcoTender program in rural-amenity landscapes is re-shaping the way participants conceptualise ‘what belongs’ in their bushland, whilst also offering an alternative mechanism for legacy creation. Exploring the ways in which this MBI scheme is being adopted by participants addresses calls for more research interrogating how neoliberal environmental governance is being ‘taken-up, resisted or contested’ (Higgins et al., 2010, p385; Robertson, 2007). Exploring program adoption is especially pertinent in rural-amenity landscapes, where the implications of MBI policy are poorly understood (Gosnell, 2011). In drawing out the interactions between the program and landholder aspirations for ecological preservation and restoration, I conclude this section with a reflection on the inherent tensions between different aspects of the EcoTender scheme.

Background and scheme objective

The rise of MBI approaches to conservation globally is strongly reflected in Victoria, with the state government pioneering a reverse auction tender process for delivering ecosystem services. Two tender schemes (BushTender and EcoTender) are run under the ‘EcoMarkets’ banner of market-based approaches to conservation. BushTender focuses primarily on biodiversity and remnant vegetation, while EcoTender covers biodiversity and related land management such as erosion control and water quality improvement. As noted in Chapter 3, I chose to study EcoTender, despite its multiple focuses, as its implementation areas have largely been in Melbourne’s hinterland. All EcoTender participants I interviewed were focusing on ecological conservation pursuits.

Reverse auction tenders run through the EcoMarkets portfolio are principally designed to maximise the cost-efficiency of the government’s investment in

ecological services through a process of competitive bidding between interested landholders (Stoneham et al., 2003). The scheme has been running for a decade, with different regions selected as being eligible at varying times, as seen in Figure 7.9. It should be noted that the EcoMarkets schemes are still referred to as ‘trials’ by the Department of Sustainability and Environment, despite the 10-year duration, due to a lack of dedicated funding or political commitment to long-term implementation.

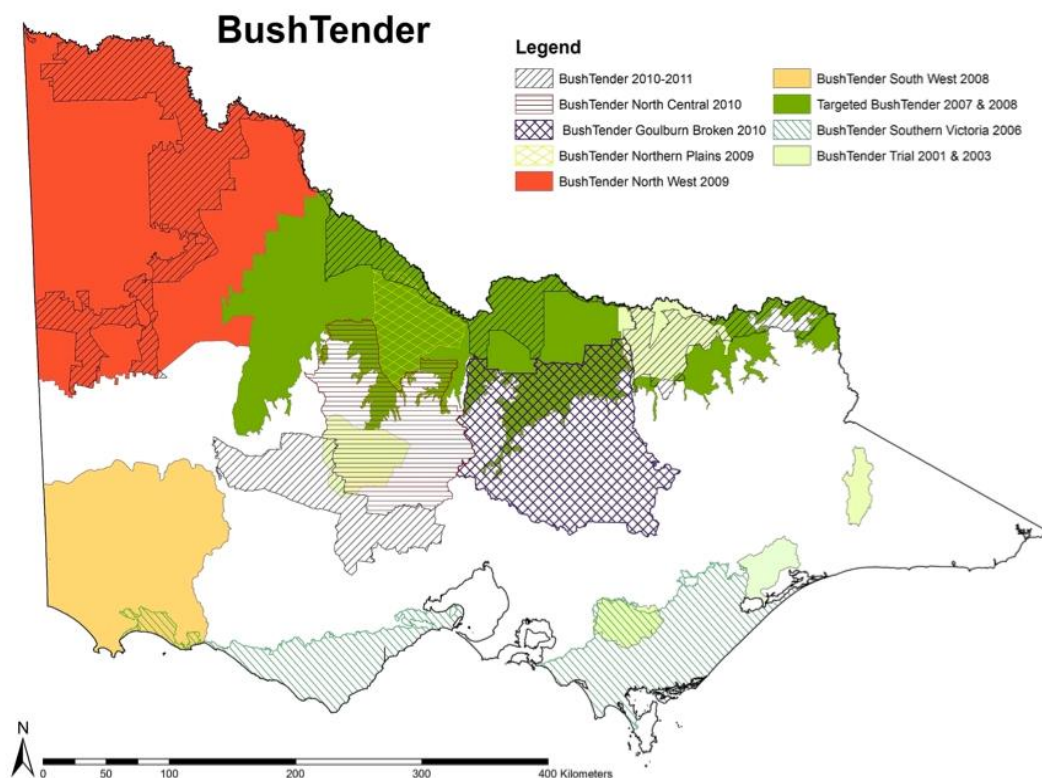


Figure 7.9. Locations of BushTender auctions since the first trial in 2001, showing how they have been rolled out in discrete locations over time.

The two EcoTender trial sites covered in this study occur closer to Melbourne than most of the BushTender trials shown in Figure 7.9. The Port Phillip and Westernport trial in the Bass Coast region began in 2009 and the Corangamite trial began in 2008.

For each of the trials the government allocated a pot of funds from which landholders are paid, thus restricting the number of participants. For example,

the Targeted BushTender trial (see Figure 7.9 above for location) was allocated \$3.2 million for on-ground works, ultimately shared by 86 landholders across 173 separate sites (DSE, 2011). The scheme seeks expressions of interest from landholders through the Landcare program and advertisements in local newspapers. Interested participants then go through a process of determining the conservation actions they are prepared to undertake on their property, and calculating what it will cost to provide these services. This process is achieved in consultation with an extension officer who visits the property to provide advice on the significance of their ecological asset, and suggests possible management tasks. As DSE notes, 'this flexibility encourages high participation levels from a broad spectrum of the community' (DSE, 2010b, p3). Offering landholders a 'regular and reliable income stream' for restoring or preserving native vegetation, (ibid, p1) is an attempt to encourage participation from property owners who consider biodiversity management economically unfeasible or a low priority.

Information gained by the extension officer during the site visit, combined with flora and fauna mapping data, contribute to a score for the biodiversity significance of a given site. Upon agreeing to a range of potential management practices, extension officers prepare a draft management plan for each landholder. Common management actions include fencing remnant vegetation to protect it from stock, noxious weed removal and revegetation. There is also the potential to nominate for a permanent protection agreement on the title of the property as a proposed management action. This can be done by agreeing to a Trust for Nature covenant, or through a covenant signed directly with the DSE. The permanent protection offered by the department consists of a binding on-title agreement between the state and the landholder to restrict land use for conservation purposes in accordance with Section 69 of the *Conservation Forests and Lands Act* (1987). While the difference between this agreement and a Trust for Nature covenant is negligible, it is important to note that not all participants wanting a Trust for Nature covenant will meet the eligibility requirement for 'intact' vegetation communities, while Section 69 Agreements are more flexible in their eligibility criteria.

Once a landholder decides on the management actions they are willing to pursue, they nominate a price for which they would be willing to provide the ecosystems benefits outlined in the management plan. The bid submitted by the landholder will generally take into account the cost of the management actions (herbicide, fencing materials), their own labour and the cost of taking farmland out of production. The logic of the bidding process is that landholders will keep their bids low, as they know they are competing with other landholders for a finite pool of money.

Once the bid is submitted, the Department multiplies the biodiversity significance of the property (presence of threatened species, for example), with the anticipated benefits of the proposed conservation actions, and then divides that by the cost (the bid submitted by the landholder). The resultant score represents a measure of value for money as a biodiversity investment. These values are then ranked from highest to lowest and funding is allocated accordingly exhausted. The successful bidders then sign up to a contract, usually for a 5-year period.

MBIs as an approach to environmental governance

As I touched on in Chapter 2, the move towards MBIs for achieving biodiversity conservation outcomes on private land is the most recent phase of policy evolution in NRM (Greiner & Gregg, 2011; Marshall, 2007). EcoTender is symbolic of the increasingly hands-off role of centralised government in the delivery of NRM in line with a neo-liberal governance mentality (Marshall 2009; Mansfield, 2008). Having moved through the 'roll back' phase of decreasing state-based 'command and control' governance, initiatives like reverse-auction tenders represent efforts to re-regulate the environment in ways that accord with marketisation, ownership and privatisation (Higgins & Dibden, 2010; Lockie & Higgins, 2007; Mansfield, 2008; Robertson, 2007). The characterisation of EcoTender as a neo-liberal instrument is derived from the individualistic nature of participation, in which prospective adopters are pitted against one

another in a competitive auction process. Moreover, the efficacy of the scheme is defined by private property ownership, meaning conservation benefits will be dictated by who participates and where they participate, constraining the potential for landscape-scale outcomes (Lockwood et al., 2002). It is also neoliberal in the same way all voluntary schemes are; participation is not mandatory, meaning the rights (real or perceived) ascribed by ownership of private property are preserved.

While it is difficult to gauge the ecological benefits of MBIs to date globally given their recent introduction, their design and implementation has been criticised in several respects (Whitten, Bueren, & Collins, 2003). The potential for MBIs to attract participants who would otherwise be uninterested in conservation – a stated aim of these tender-based schemes – has been roundly questioned (Greiner and Gregg, 2011; Higgins, Dibden, & Cocklin, 2010). Questions have also been raised about the ability of programs to increase the management capacity of landholders. Limited management capacity may mean participants lack the skills to deliver the ecological benefits they have agreed to provide (Bekessy & Cooke, 2011; Petheram & Campbell, 2010).

The potential for existing intrinsic motives for stewardship to be replaced by extrinsic financial reward has also been raised, resulting in minimal net gain in ecosystem condition (d'Adda, 2011; Greiner & Gregg, 2011; Reeson, 2008). For example, landholders may already be conducting management activities at their own expense, motivated by a sense of stewardship for the land. A program which pays the same landholder to complete an activity they would have undertaken without a financial incentive is an inefficient investment (Reeson, 2008). This idea of 'crowding-out' intrinsic motives with extrinsic ones has gained traction as an important consideration in the design of MBI schemes.

Evidence from farming contexts further suggests that incentive mechanisms are not embraced when they ignore local social and land use contexts (Farmer-Bowers & Lane, 2009). Moreover, incentives are unlikely to be attractive when they represent only a fraction of the productive capacity of the land being

targeted for conservation (Greiner & Gregg, 2011). One element of consensus has been the recognition that MBIs alone will not achieve landscape scale conservation outcomes, without the assistance of other policy levers like legislation and education programs (Higgins et al., 2010; Lockwood, Hawke, & Curtis, 2002).

Roll out in amenity landscapes and 'hybrid' governance

Little empirical examination has been undertaken to date to determine the implications of MBIs for conservation in amenity landscapes (Gosnell, 2011), especially compared to the body of on work agri-environment programs in productive farming contexts. This is largely due to the recent emergence of multifunctional landscapes as a topic of research interest (Holmes, 2006), combined with the short history of MBIs as a policy mechanism (Cocklin et al., 2007). In the work conducted to date in this area, the complexity of amenity landholder motivations for conservation is prominent (Cooke et al., 2012). This complexity leads to questions about the wisdom of investing public funds for conservation in amenity lifestyle regions, due to the potential for steeper learning curves and lesser management capacity amongst recent in-migrants compared to long-time farmers (Pannell & Wilkinson, 2009). Despite this, rural-amenity landscapes have been identified as a useful location for assessing how new MBI arrangements are working (Gosnell, 2011; Lockwood & Davidson, 2010).

In exploring the implementation of EcoTender I sought to look beyond the narrative of neo-liberalism as an all-encompassing project to scrutinise the inherent contests, compromise and creativity that emerges as actors navigate policy implementation on the ground (Larner, 2003; Lockwood & Davidson, 2010). Recent work interrogating neo-liberal governance has sought to expose its potential to take 'multiple material forms, and... give rise to unexpected outcomes' (Larner, 2003, p511; Robertson 2007). The seemingly contradictory pursuit of environmental sustainability through the avenues of private property rights and economic rationalism in Australian NRM policy is a case in point

(Higgins & Lockie, 2002; Lockie & Higgins, 2007). The potential for actors to manipulate 'progressive spaces' (Lockwood & Davidson, 2010, p389) for social and environmental betterment within neoliberal policy has seen programs like Landcare recognised as a 'hybrid' form of governance (Higgins & Lockie, 2002).

My objective here was to take up calls to examine how neo-liberal programs like EcoTender are being operationalised at the property level (Higgins & Dibden, 2010), with specific emphasis on the creative applications that may be emerging. Consequently, in the following sections I discuss how the landholders I interviewed are implementing EcoTender in ways that challenge the anticipated attraction of MBIs as financial inducements for conservation in rural-amenity landscapes.

A mechanism for preserving dynamic ecologies

Landscape legacy has emerged as a strong influence in driving the tangible outcomes of management, resulting in ecologies that are mediated by dwelt experience. While Trust for Nature covenants seem a logical policy fit for preserving legacy, some of the EcoTender participants I visited were implementing the scheme for similar purposes.

For two of six EcoTender participants, the scheme served as a potential opportunity to permanently protect restored land or remnant vegetation that was unlikely to qualify for Trust for Nature protection. Maddy and Karen had been informed by a Trust for Nature extension officer at an earlier juncture that their revegetation and degraded remnant (respectively) would likely be considered by the Trust to be of insufficient ecological 'intactness' for a covenant. As a result, both landholders jumped at the chance to submit an EcoTender bid when they discovered the program offered a permanent protection agreement similar to a Trust for Nature covenant (despite the subtle difference, participants frequently referred to EcoTender agreements as 'covenants'). Karen took the surprising step of deliberately placing a low bid in the reverse auction, making

her proposed management actions appear to be a highly cost effective investment, increasing her chances of being accepted:

Karen: My submission price – I took the tender and all the fencing costs and added them up and I think I probably split it 50/50...

Benjamin (Interviewer): Right, so you significantly... You were prepared to pay for some of it yourself?

Karen: Yeah. Yeah, about half the costs, 'cause it's something I would... have done anyway but I think the real bait for me was the covenant. 'If I did all this [work] and after I've gone somebody buys the land and knocks it all over, what's the point?'

Despite the economic incentive being the centerpiece of the scheme, Karen saw EcoTender as an alternative way to realise an existing desire to protect bushland from the increasing development in the local area (Figure 7.10 below). Financial compensation for the provision of ecosystem services was secondary. The attraction of the scheme was the fact that it 'had teeth' in terms of permanent protection, allowing 'all this [work]' Karen has done to be preserved.



Figure 7.10. Karen's small patch of remnant vegetation. These eucalypts were the core of this small patch, with only a small amount of rehabilitating understory vegetation following many years of cattle grazing. Much of the understory consisted of exotic pasture grasses.

Maddy was enthusiastic about EcoTender for similar reasons. While being disappointed in retrospect that she did not place a higher bid for her services, this was ultimately a peripheral concern. For Maddy, the real value of the scheme lay in the opportunity to permanently protect her revegetation (see Figure 5.1 for image of Maddy's revegetation):

I wanted to protect it into the future for the environments who can't protect themselves and for all the many people who have come and helped. (Maddy)

Maddy was keen to protect the material environment for its ecological value, but also because the vegetation embodied management effort on behalf of the 'many people' who had assisted with the project. Ensuring a future owner could not undo these efforts was critical, just as it was for Karen, echoing the motives of Trust for Nature covenant holders in the attempt to project legacy beyond their

property tenure. This parallel demonstrates a novel and seemingly contradictory application of an MBI for the purposes of strengthening regulatory control (Morris, 2008). Interestingly, Tina was also keen to pursue a 'covenant' through EcoTender for the same reason, but ultimately decided she did not understand the agreement sufficiently to pursue it as part of her bid – a decision she regretted in hindsight: 'I would like to have seen that done' (Tina).

Despite not pursuing the protection agreement, Tina described sentiments of legacy preservation similar to those of Karen and Maddy above, in determining the amount of money she bid for in the EcoTender auction to conduct other management activities:

We tried to figure out what we... need in money to meet the obligations of protecting the site, keeping it as a quality revegetation site. (Tina)

Of interest here is how Tina has conceptualised 'protecting the site' not in terms of covenants on the property title but the need to finance the ongoing management required to sustain 'quality'. Not being able to afford herbicide for weed removal, for example, would reduce ecological quality, compromising the many hours of management input she had personally funded. Perhaps having produced a functional habitat for birds and mammals within a farming region where little habitat persists, Tina had come to regard management upkeep as an 'obligation'. As such, she was using the money provided through EcoTender to continue the stewardship work that had begun nearly two decades prior.

Ken was utilising EcoTender in a similar fashion, as his bid was intended to finance the continuing of the management he started a few years earlier. Ken provided visceral descriptions of gorse that was 'choking' the land, completely obstructing a small creek that ran through his property. These 'impenetrable' thickets took years to clear, as Ken struggled to remove it through burning and weed spraying. Both Ken and Tina saw elements of the scheme that appealed to their existing stewardship, and they operationalised the scheme through this lens. This was also evident in the protectionist motives of Maddy and Karen: to

them the scheme was about mechanisms for preservation, because they wanted their ecologies to persist beyond their property tenure.

The desire to preserve landscape legacies created by management over time demonstrated how EcoTender was largely being used to implement existing plans (as seen above) rather than leverage changes to practice or behaviour. Interestingly, the ecologies being preserved in this instance were more evidently 'dynamic', in the sense they were either revegetated patches or heavily altered remnants. This affirmed the literature suggesting such schemes are most effective when they engage with existing aspirations (Higgins & Dibden, 2010; Greiner & Gregg, 2011; Lockwood et al., 2002).

Evaluations of previous MBIs run in Victoria support the suggestion that some landholders – specifically in rural-amenity areas – are using the scheme to consolidate an existing objective of legacy preservation. A BushTender trial run in the North Central Region, which encompassed amenity regions around Bendigo and Castlemaine (see Figure 7.9 above), resulted in a high number of protection agreements. Sixty-three contracts were signed, 15 by participants seeking permanent protections as part of their agreements, and 16 by participants who already had Trust for Nature conservation covenants before they submitted their bids (Sweeney Research, 2002). The fact that amenity migrants can be more open to restrictive covenants than farmers (Pasquini et al., 2010) may mean this pursuit of increased regulatory protection through MBIs is strongest in lifestyle land use contexts.

Opportunities to learn about ecological legacy through extension

The decline of extension services across NRM in Australia means it is difficult for landholders with existing remnant vegetation to learn about their patch from expert sources (Marsh & Pannell, 2000). Two separate participants, Nick and Karen, were especially pleased with the opportunity to engage with someone knowledgeable about the landscape in which they resided – even if, in Nick's case, he was not in complete agreement with the field officer about which species 'belonged' on his property. As was observed with the Land for Wildlife scheme,

the opportunity to walk your property in the company of an extension officer who can point out the unique and interesting aspects of your ecosystem is highly coveted. As noted in Chapter 5, opportunities to learn about the nature that persists 'on-property' connect with amenity aspirations for management practice. This same opportunity for extension was seen as important from the perspective of Melissa, the EcoMarket coordinator:

There's not a lot of extension officers [across all programs]... there is less and less of them I guess around these days, so [this is] one of the projects that they're still, I guess that opportunity for contact and advice and that sort of thing. (Melissa, EcoTender coordinator)

Upon reflecting on the apparent benefits of extension through EcoTender, it appears the scheme's focus on financial assistance as the intended driver of conservation outcomes has eclipsed recognition of the significant role of the property visit by the field officer. For example, Karen mentioned her primary objective was protecting her remnant with a covenant, but it was the field officer who suggested including a patch of revegetation as part of her bid. (I will extend further on the place of extension as an issue relevant to the design of all schemes in the next chapter). As Melissa noted, both farmers and lifestyle-orientated landholders were keen on the opportunity presented by the scheme to learn more about their patches from extension officers:

I mean they are in these programs to learn, I guess, just as much as to get money, so they are definitely are keen to sort of know what they have [on their property] and what makes it good. (Melissa, EcoTender coordinator)

As noted above, learning about a remnant patch by gaining an insight into the species that lived there helped to further the objective of stewarding the property-based ecology. More than half of all research participants alluded to a belief that their bushland was in some way 'significant', even if just for its very existence. As noted in the Land for Wildlife section, being accepted into any conservation scheme was a welcome 'affirmation that this area... is worthwhile

keeping' (Lauren, Land for Wildlife). The desire to learn 'what makes [their bushland] good' identified by Melissa above, suggests the extension officer visit is an opportunity for landholders to affirm beliefs that their patch is unique. While program staff like Melissa realised the value of the property visit, it is not promoted in program documents as a particular benefit of participation. Property visits are primarily mentioned as a step towards submitting a bid rather than a notable and desirable feature of the scheme in isolation. During subsequent meetings with policy makers involved in the scheme (without direct contact with landholders), some expressed surprise at the importance of the property visits to the participants interviewed.

The popularity of extension in this case shows the value landholders place on conversing with someone who can provide information about their own bushland. Parallels exist here to MBI schemes in a family forestry context, where extension visits were considered more important than financial incentives for timber harvesting (Kilgore et al., 2007). The relative importance of extension visits suggests financial inducement does not define participation in MBI schemes, especially when landholders view the scheme as an avenue for satisfying wider objectives. As has been shown in this first section, these wider objectives often connect to preserving stewardship efforts and learning more about the property-based ecology; motives tied strongly to aspirations for rural-amenity ownership. This is true of both the extension visit and the opportunity to place a covenant through EcoTender.

Re-making space for 'native' nature?

The payments and contracts involved in EcoTender brought a formality to the revegetation efforts for participants who had not previously had obligations externally imposed on their practice. This formality extended to the written management plans they agreed to implement upon having their bid accepted, which included maps designating the property area where management was to be conducted. For some participants, this characteristic took management practice from a lifestyle-orientated activity to a process conceptualised as a

‘serious’ ecological pursuit. Being paid to undertake conservation management created an interesting power dynamic that did not exist previously when participants were ‘doing their own thing’ when it came to restoration. Several participants expressed a sense of responsibility to the coordinator of the scheme, and even to the taxpayer, to achieve the best conservation outcome possible. The following section focuses on restoration specifically, exploring how the obligations for planting indigenous flora imposed by the program were handled by participants.

EcoTender’s focus on returning indigenous species to the landscape through restoration proved to be influential in re-shaping landholder management practice. Having received money to manage a patch of mature revegetation she had planted over a decade earlier, Tina decided it would be best to cut down a chestnut tree inside this patch (Figure 7.11 below). Tina planted this tree when she moved to the property to see if it would bear fruit, with the intention of establishing a small orchard if it succeeded. Having failed to fruit, this tree was left alone as the native species she planted grew up around it. It was only after becoming involved in EcoTender that Tina felt ‘it [does not] really fit in here’ anymore. Despite presenting no threat as an invasive weed species, and not being required to cut it down for entry into the scheme, Tina saw her revegetated area as a space for native species. In this sense, Tina’s patch of revegetation was solidified as ‘bushland space’, as described in Chapter 6, meaning domestic nature like a chestnut tree should be removed. The ongoing presence of a non-native species no longer seemed appropriate or in keeping with the responsibility of providing ecosystem services as Tina conceptualised it.

Melissa’s (program coordinator) comments support the idea that landholders associated payments with a sense of responsibility for undertaking conservation work. She indicated that in her experience of running MBI programs, very few participants did not complete the management actions for which they had been paid, suggesting most people ‘want to do the right thing’.



Figure 7.11. A felled chestnut tree in the EcoTender management zone, exemplifying Tina's change in thinking about her restoration project as a space where only 'native nature' belonged following her adoption of EcoTender.

By contrast, Nick struggled to embrace the perceived restrictions that EcoTender participation placed on his management practice, actively challenging the compulsion to plant species that 'should be there'. The list of approved indigenous species for revegetation was viewed as constraining, as Nick enjoyed experimenting with plants, stating he just 'likes to grow things'. This was very much part of Nick's amenity aspirations for his property, and he viewed EcoTender as a way of helping to finance this interest. According to Nick, his field officer had rejected some of the species he wanted to propagate due to a belief they were not part of the 'original' vegetation community. As such, Nick was less willing than Tina to forgo recreational or ornamental planting that fulfilled

amenity objectives, believing he should be allowed to do both (Figure 7.12 shows this contested planting space).



Figure 7.12. The EcoTender field officer and the landholder (Nick) had differing perspectives on whether the number of eucalypts planted (yellow gum) was too high. Nick contested the field officer's assessment of the site as a grassland vegetation community.

A conflict had also arisen regarding the proportion of eucalypt species to grassland species – the field officer felt the original vegetation community would have many fewer eucalypts per hectare than were currently growing. While Nick enjoyed being able to engage with someone who had knowledge of local ecology, he felt limited in the control he had over his restoration outcomes. The fact he was receiving 'good money' to undertake this work, however, made him reluctant to challenge the restrictions placed on his planting preferences.

The experiences of Nick and Tina demonstrate an inherent tension between 'pure' ecological restoration that insists on native species, and the process of negotiating dynamic ecologies that reflect both stewardship *and* amenity (Head, 2011). By challenging amenity values, EcoTender is forcing some participants to

consciously confront this tension in their aspirations for the first time. Given that Tina continued to pursue dynamic ecologies outside of the areas on her property designated as EcoTender management zones, it appeared the area inside this zone had been re-conceptualised as a bushland space. However, Nick was pushing back against what he saw as needless restrictions on his management practice. Nick's objections were partly grounded in the idea that 'no one really knows' what grew in the area prior to European settlement, so ideas of 'what belongs' are already contested.

Interestingly, Ken had been successful in challenging a 'purist' practice recommended by the field officer who helped develop his management plan. The recommended action required the retention of fallen timber for habitat purposes and a restriction on cutting trees for firewood. As he notes below, his success in arguing that his remnant patch was re-growth vegetation, having been harvested for timber and firewood during the gold rush, resulted in a compromise:

Almost all of my block was cut for timber at one time. That was an interesting thing, in my EcoTender contract normally it said, 'no firewood to be taken out no logs to be removed'. I put it to them that in this block here that because it's yellow gum mainly and it was cut for firewood in the 1940s, all the yellow gum copses... so it grows out multiple trunks... Which has suited me because it has worked in well when I need fence posts I go and cut a minor trunk, drop out the straight bit, cut up the rest for firewood and leave the tops [for habitat]. (Ken)

Ken had managed to gain acceptance for his novel management practice, which helped him service both stewardship and wider land use objectives for his property. It also showed the need for EcoTender to be more sensitive to the 'dynamic' and modified aspects of ecologies in prescribing management interventions. As we saw in Chapter 6, while landholders want to pursue ecological restoration, they rarely wanted it to come at the expense of other amenity aspirations. Ken was the only participant who managed to reach a compromise that struck this balance. For participants like Tina, this tension was

subdued by the responsibility she felt to deliver ecological outcomes for the payments received.

Relationship between scheme intention and landholder implementation

The operationalisation of EcoTender explored here emphasises how recent neoliberal policy prescriptions can remake ecologies, but also be remade itself in the course of implementation (Castree, 2007b). The most evident examples of creative adoption of EcoTender were its use as a tool for increasing regulatory protections on private land and as an avenue for extension services. Both of these implementation objectives have an underlying association with amenity values and the pursuit of stewardship on-property.

The adoption of an MBI scheme to increase regulatory protection is a prime example of novel implementation. As noted in Chapter 2 and earlier in this section of Chapter 7, programs like EcoTender are informed by a move away from regulation as a policy lever. Nevertheless, and going against the mentality of the scheme, landholders saw EcoTender as an opportunity to increase the protections on their patch. For Karen and Maddy, many hours of effort had gone into their ecologies; moreover, the efforts of both were tied to landscape legacy. Maddy wanted to bring back an ecology that had long been cleared from the surrounding hills, while Karen sought to protect vegetation she had once cleared from her property.

One could argue that as protective covenants are offered by the scheme, their implementation is not a novel outcome. However, it is the nature of their adoption that reveals the discord between scheme objectives and landholder operationalisation. Both Karen and Maddy had limited interest in being paid to adopt a covenant (in Karen's case, she sought to be under-paid); they sought legal protection, and EcoTender simply provided an opportunity to achieve it. Actions such as this showed that landholders are not merely passive subjects of neo-liberal policy prescriptions (Castree, 2007a).

The attraction of an on-property extension visit was a highly valued aspect of the scheme. Participants saw this as a stand-alone benefit of participation, while the scheme itself positions this as simply a stage in the registration process. The reason for the popularity of extension visits was the desire to learn more about the owned space, demonstrating a strong amenity component to the value of extension. Similarly to the appeal of extension in Land for Wildlife, walking a property with an expert was seen as a great opportunity for social learning. I probe the implications of revealing the value of extension services for conservation policy design in Chapter 8.

Far from experiencing discordance between neoliberal prescriptions and 'ecocentric' mentalities, some landholders appeared to feel compelled by the payments they received to deliver restoration outcomes. Alternatively, as in Nick's case, knowing they were receiving money for the work made it easier to accept outcomes not totally to their liking. However, compulsion to practice management against amenity preferences could lead to waning motivation for environmental activities over time (Reeson, 2008; Reeson & Tisdell, 2007). Having witnessed Nick's enthusiasm for experimental revegetation and his strong active stewardship disposition, it would be hard to imagine him not planting species that 'did not belong' in his restored area once his EcoTender contract finishes.

All six of the EcoTender participants possessed an active stewardship disposition (see Table 5). There was no discernible sense that dispositions had altered as a result of participation; rather, the emphasis of the program on restoration as a key management activity most likely attracts individuals with a propensity for hands-on management. However, as shown in Chapter 5, there is a strong amenity foundation to the emergence of dispositions. As such, revegetation motivated by aesthetic or recreational values can play a role in shaping ideas on how active dispositions should be enacted. This can mean non-native ecologies form part of the expression of stewardship, as shown in this section, and through the dynamic ecologies of Chapter 6. Ultimately, in focusing on indigeneity in restoration, EcoTender is challenging the dispositions of people like Nick. Once

the EcoTender contract runs out, and the financial inducement for shifting his disposition has ceased, it seems possible Nick will return to an active disposition that favours diverse natures and not simply indigenous species.

Conflicting scheme objectives?

Reflecting on the experiences of EcoTender participants and the objectives of the scheme, there appears to be an inherent contradiction in the way EcoTender achieves different conservation outcomes. Degraded or novel ecosystems were being protected by conservation agreements on the one hand (Maddy, Figure 5.1 & Karen, Figure 7.10), while participants undertaking restoration were compelled to meet 'pure' ecological standards on the other. In other words, the scheme was encouraging the preservation of dynamic ecologies while constraining their creation through rigid restoration guidelines. As we saw with Nick particularly, the requirement to 'bring back' the vegetation community that persisted prior to clearance for agriculture could be stringently enforced by local coordinators or extension staff.

The prospect of EcoTender being implemented in regions where very little remnant vegetation is present indicates that ecological gains would still be likely if restoration requirements were more flexible. There may actually be potential for attracting more participants to undertake revegetation if the objectives were not so focused on 'pure' nature restoration. This is especially true in light of contested notion of indigeneity and belonging with regards to flora (Head, 2011; Trigger & Mulcock, 2005). By allowing space for other types of nature as part of restoration the scheme could better appeal to the multifaceted stewardship and amenity aspirations of landholders seen in Chapter 5 and Chapter 6. This is especially relevant when dynamic ecologies are already being accepted as part of the permanent protection agreements under the same scheme.

Chapter conclusion

My analysis of the operationalisation of voluntary conservation schemes by landholders revealed notable challenges for conservation policy in rural-amenity landscapes. Policy interventions in the form of voluntary schemes are encountering a complex arrangement of practices and ecologies that began to emerge prior to landholder adoption. In some cases this is producing resistance and reinterpretation of program objectives, in line with amenity values, stewardship dispositions and dynamic ecologies. In this section, I provide a brief summary of how the processes that inform management (Chapter 5) and the material outcomes of management practice (Chapter 6) are interacting with these conservation schemes. Finally, I summarise how these interactions have contributed to implementation outcomes that both align and depart from the original program objectives. I will return to the contents of this summary later when reflecting on the future of voluntary schemes in rural-amenity landscapes in Chapter 8.

Amenity values, knowledge generation and stewardship dispositions

The amenity values possessed by landholders powerfully influenced their adoption of conservation schemes. Trust for Nature covenants appealed to existing values by offering protection for conservation outcomes on-property, allowing landholders to preserve their stewardship as expressed in the landscape. While this was a problematic objective that did not accord with the objectives of the scheme, it was the appeal to individualised conservation on-property that made it attractive. Landholder conceptions of covenants as contributing to landscape-scale conservation also revealed the role of amenity, as individualised collective action did not require forgoing an on-property management focus.

Of the three schemes I evaluated Land for Wildlife was perhaps most aligned with amenity aspirations, as it allowed landholders an avenue for learning more about their patch. The personal aspects of stewardship were clearly evident from accounts of program signs not being displayed, to ensure the maintenance of

privacy and good neighbourly relations. The lack of interest in the formation of local conservation groups further emphasised the property-centric interest of amenity landholders. In similar fashion to Trust for Nature, EcoTender operationalisation was characterised by a desire to preserve landscape legacies that embodied both stewardship and amenity values. Karen's redemptive practices of protecting a patch she once cleared showed this clearly. Moreover, tensions between restoring pure ecologies and dynamic ecologies on Tina and Nick's property showed how amenity permeates legacy creation in EcoTender.

Trust for Nature was rarely viewed by participants as a potential source of knowledge. However, realisation of the difficulty of protecting legacy without passing on experiential knowledge gave landholders an awareness of how much they had learnt over the years. With respect to Land for Wildlife, the extension services provided a connection to a community of practice. This proved a source of sporadic learning, especially through the newsletter. Moreover, Land for Wildlife extension encouraged landholders to generate their own experimental knowledge through hands-on nature engagement. EcoTender was implemented similarly to Trust for Nature, with landholders having strong ideas for the scheme prior to implementation. However, the extension visit was highly valued, with participants thankful for the chance to learn more about their property ecologies from an expert.

Both active and passive stewardship dispositions were expressed by Trust for Nature participants. While those with a passive disposition may have been attracted by the potential of the scheme to preserve the expression of stewardship effort over time, the scheme itself did little to shift existing management tendencies. Land for Wildlife also appealed to both dispositions, but appeared relatively effective in shifting reluctantly held passive dispositions towards a more active footing. The appeal to amenity values was important here, as suggestions for taking a 'hands-on' management role provided through extension revolved around activities like nest box construction. EcoTender appealed almost exclusively to active dispositions, mainly due to the emphasis of the scheme on restoration. Of interest, however, is whether EcoTender is re-

aligning active dispositions towards restoration centred on species indigeneity rather than dynamic ecologies. Nick's story suggests the potential for this to be a temporary shift – only for the duration of the contract.

The legacies and boundaries of dynamic ecologies

Landscape legacy was the most prominent aspect of dynamic ecologies that mediated landholder participation in conservation schemes. Having restored or preserved some form of bushland, landholders viewed Trust for Nature and EcoTender as avenues for protecting this legacy into the future. In seeking a form of binding protection, landholders wanted to protect their stewardship efforts; this was particularly important for ensuring the continuity of conservation benefits beyond the tenure of property ownership. The desire to protect modified ecologies like those belonging to Karen and Maddy was a poignant example of how landholders wanted to protect legacies that embodied their experience of nature over time.

Domestic space creation was rarely a decisive issue, as all three schemes allowed room for non-native ecologies. Both EcoTender and Land for Wildlife only applied to the sections of the property where conservation was being pursued, while Trust for Nature allowed a domestic space around the home as part of the covenant. Trust for Nature has had past issues with domestic space, however, as some early covenants provided too little space for non-conservation land use. Three participants who reported lengthy deliberations with the Trust prior to signing their covenant cited the negotiation of a living space as the key issue. Interestingly, landholders who were aware of covenants but chose not to participate cited potential restrictions on flexible land use and recreational pursuits as a reason for not adopting the program.

Participants' view of bushland space as a space for altruistic conservation was a notable factor in the EcoTender scheme. Tensions between the delivery of conservation outcomes in line with program objectives and existing dynamic ecologies presented difficult decisions for some participants. Such tensions were not as evident for Land for Wildlife participants, as the scheme's flexibility

avoided conflict over whether dynamic ecologies were compatible with conservation outcomes. With respect to Trust for Nature, the notion of individualised collective action showed how landholders sought to protect their bushland space as a social good contribution to landscape-scale conservation.

Comparing scheme objectives with landholder operationalisation

As a result of existing practices and ecologies, schemes had the potential to be operationalised by landholders for purposes that departed from the primary objectives of the scheme. As observed through the landscape legacy concept in particular, the agency of ecologies on private land can drive novel management outcomes through rapid or unexpected change. When these changes do not accord with program mentalities it can lead to a disjuncture between the ecology landholders seek to protect, and those represented by the schemes. However, the close association between some program objectives and amenity values meant close parallels between objective and implementation were also possible. The synergies and divergences discussed in this chapter are summarised in Table 7.1 and Table 7.2.

Table 7.1. Synergies of landholder practice and program intention.

	Scheme objective		Landholder operationalisation
Trust for Nature	Protect biodiversity through binding regulation	↔	Protect biodiversity on-property in perpetuity
	Protect Victoria's ecologies on private land as a complement to public reserve system	↔	Protect ecologies on private land as a contribution to landscape-scale social good conservation outcomes
Land for Wildlife	Encourage and support landholders to preserve wildlife	↔	Restore and preserve species habitat to increase the ecological values of the property
	Provide assistance and knowledge to landholders through extension	↔	Learn about management and ecosystem function through extension
	Appeal to landholders with diverse land use aspirations	↔	Adopted by landholder with diverse and multiple land use objectives
	Encourage landholders to be active in the management of their bushland	↔	Achieving hands-on management (active stewardship dispositions) through amenity-related practice
EcoTender	Encourage the restoration of indigenous species and preservation of existing remnants	↔	Broadly pursue restoration and preservation of ecologies on-property

As Table 7.1 identifies, it is the broader objectives of Trust for Nature and EcoTender that accord with landholders' intentions. Ecological preservation or restoration and the application of binding regulatory protections are the most prominent alignment of landholder and policy objectives. Land for Wildlife's broad objectives and focus on extension and knowledge generation mean some of its more specific objectives connect to the aspirations of landholders.

Table 7.2. Divergence of landholder practice and program intention.

	Scheme objective		Landholder operationalisation
Trust for Nature	A narrow focus on protecting ecological legacy in perpetuity through legally binding planning protections	↔	Preserving landscape legacy and the material expression of stewardship in the landscape
	Assist landholders with management practice during property tenure	↔	Practice conservation on-property individualistically, sourcing knowledge from outside the scheme
Land for Wildlife	Attempt to encourage the formation of neighbourhood groups for collective practice	↔	Allowing participants to pursuing conservation individually away from neighbours
	Sharing conservation knowledge through the newsletter	↔	Access to a community of practice for emotional support when neighbours are hostile to conservation efforts
EcoTender	Use financial incentives to encourage program adoption amongst a diverse landholder cohort	↔	Adopt program to increase regulatory protections on modified ecologies or protect legacy; financial incentives a minor incentive
	Property visits my program staff serve as a component of the application process	↔	Learn about property-based ecologies through extension highly valued as a scheme outcome
	Achieve the restoration of indigenous species in modified landscapes	↔	Achieve ecological restoration centred on native species, while leaving some room for other types of nature

The tensions between scheme objectives and landholder implementation that are summarised in Table 7.2 have important implications for the future of conservation policy in rural-amenity landscapes. Landholders are seeking diverse outcomes from schemes that do not always accord with the ecological objectives of the schemes. Participants are looking to satisfy personal stewardship, landscape legacy and amenity aspirations as well as ecological outcomes. However, the schemes themselves are centred more narrowly on

ecological objectives, and are less cognisant of the human dimension. The exception to this is Land for Wildlife, which is flexible enough to appeal to a variety of landholder aspirations.

The durability of stewardship dispositions and their materialisation as dynamic ecologies means addressing tensions between scheme objective and landholder implementation is important for future policy. This is especially true for EcoTender, which has the greatest disparity between scheme intentions and landholder operationalisation. Given the strengthening interest in MBIs both in Australia and overseas, the lessons to be drawn from these findings have widespread relevance. I turn to the implications of these findings across all three programs for conservation policy in rural-amenity landscapes in the following chapter.

Chapter 8

A humanistic turn for conservation policy in rural-amenity landscapes?

Introduction

My aim in Chapter 8 is to discuss the contribution of this thesis in providing new insights into the processes underpinning ecological transitions in rural-amenity landscapes. In pursuing this objective, Chapter 8 progresses in three stages. 1) A concise discussion of the key contributions of the empirical chapters with reference to the research aims outlined in Chapter 2 and Chapter 3. Given some discussion of research findings was presented in previous chapters, the aim here is to pull these threads together. 2) Based on my research findings I propose a humanistic turn for conservation policy in rural-amenity landscapes. 3) I suggest some guiding principles for how voluntary conservation scheme policy can be advanced in line with a humanistic turn, based on the understandings of practice and program adoption that I exposed.

Firstly, in summarising the empirical work of the three previous chapters, this chapter emphasises the contribution of my research to the broader field. This begins with discussion of the relationship between amenity values, knowledge generation and stewardship dispositions for management (Chapter 5). Following this I discuss how the processes underpinning the production of dynamic ecologies contributes new knowledge to the field (Chapter 6). Finally, I convey how the ideas developed in Chapters 5 and 6 explain the asymmetry between the intentions of voluntary conservation schemes and the way they are operationalised by landholders (Chapter 7).

Secondly, based on my contributions to knowledge, I present an argument for a more humanistic approach to conservation policy in rural-amenity landscapes. I use the term 'humanistic' to describe the need for conservation policy to look

beyond a biodiversity-centric mentality, to reflect the diverse ways nature conservation can be conceptualised and practiced by landholders. The multiple trajectories of management practice in both intentions and outcomes demonstrated through my empirical work are used to justify this turn. I apply the notion of 'multiplicity' here as a heuristic for embracing broader conceptions of nature conservation. I argue that a humanistic turn is especially pertinent, given landholders are already adopting schemes for the restoration and preservation of ecologies that epitomise a complex, ongoing relationship of people, material landscapes and wider social relations.

Finally, I apply a humanistic perspective to a discussion of principles for guiding policy on voluntary conservation schemes. My intention is to keep this discussion broad by taking a step back from the detailed findings of Chapter 7, to show how my focus on the quality of program participation highlights important considerations for voluntary scheme policy design. A discussion at this level of analysis allows my findings to link more easily to the diverse range of voluntary schemes being rolled out across multifunctional landscape globally. In the final chapter I translate the policy findings of my research into specific practical recommendations for Trust for Nature covenants, Land for Wildlife and EcoTender.

Reflecting on the research problem

In identifying the contribution of this thesis, it is important to first reflect on the gaps in existing research that my thesis sought to address. The intention of the research question in exploring influences on landholder management practice was to shed further light on ecological transitions in rural-amenity landscapes. To date, positive and negative ecological implications of rural land use changes have been observed and predicted in the research literature. In an attempt to reframe and progress the debate on the ecological implications of rural-amenity migration, I identified the limited research focus on how landholders actually practice conservation on their property. This research gap meant little attention had been paid to the relationship that people develop with their land over time

and how those relationships shape their practices. Moreover, quite narrow conceptions of human-nature relations have been applied in efforts to understand the environmental implications of rural-amenity migration (Abrams et al., 2012). This indicated a need to frame human and non-human agency in more specific terms, paying particular attention to the agency of the material landscape.

The dwelt human-environment perspective was developed in Chapter 3 to achieve the required reframing of agency noted above, whilst also bringing attention to the spatial and temporal elements of management. This attention to spatial and temporal elements was achieved by positioning the property as a nested and permeable spatial scale, and by recognising the role of past and future landscapes in shaping contemporary practice. A model of learning through social interaction was also presented to explore how changing social dynamics in rural-amenity landscapes are shaping knowledge exchange between landholders. Ultimately, the application of this conceptual work pointed to the need for a re-definition of management practice as more than praxis; management practice has come to reflect an inter-relationship between a priori knowledge, social and experiential learning, and the performance of a task (see Figure 3.3).

In the next section I discuss how the key findings of this work have contributed to knowledge of ecological transitions in rural amenity landscapes.

How management practice is informed

Amenity values and management practice

Amenity values proved to be a powerful foundation for management practice by directing participants' formative engagements with unfamiliar social and material environments. As Chapter 5 revealed, private property ownership can provide much of the amenity being sought through in-migration, connecting management practice to intimate experiences of nature on-property. Therefore,

landholders' pursuit of amenity is critical in directing relationships between 'land and everyday life' (Halfacree, 2006, p309).

It is not just the fact that landholders have multiple lifestyle objectives or aspirations for property that is important for understanding how practices and ecologies emerge – it is *how* these aspirations mediate experiences of nature and social interaction to inform the practice of management itself that is particularly revealing. However, before discussing this mediating role of amenity values in the generation of knowledge and stewardship dispositions, it is important to consider how the amenity values elicited here connect with previous work in the field.

The individualised, property-centric approach to management practice shaped by amenity values I have outlined here accords with previous findings regarding personal and autonomous representations of nature and management (Gill et al., 2010; Knoot et al., 2010; Urquhart & Courtney, 2011; Yung & Belsky, 2007). The results of my work also echo previous research on the role of amenity values in directing interest in non-native ecologies (Cadieux, 2011; Jones et al., 2003) and preferences for ecologies that accord with aesthetic amenity values (Van Auken, 2010). Similarly, I demonstrated that participants held broad desires to be good conservation managers and contribute to the 're-naturing' of landscapes (Argent et al., 2010; Gosnell, 2011). My work shows that landholders do not simply seek amenity in the regions to which they migrate, they are looking to create it through recreational and personal nature pursuits. Moreover, this creation is happening almost exclusively in the property space with little involvement from neighbours, reinforcing concerns about limited cross-boundary management raised by most authors cited here.

Important insights have also been produced from my analysis of amenity values that builds on the existing literature cited above. The desire to live 'in' the amenity space rather than view it from afar is an important advancement that helps to clarify the relationship between amenity values and management practice. As a result of this property-centric amenity focus, the *owned* ecology

becomes a prioritised space for conservation where landholders display a greater sense of control over the outcomes of their personal investment in management over time. The narrowing of conservation interest towards ‘my patch’ has important implications for knowledge generation, discussed below.

Amenity values show how stewardship as an *aspiration* is not simply framed as a social good responsibility, but is tied up with personal aspirations for nature (Lane & Watson, 2012; Trigger et al., 2010). I showed that landscape legacies materialised through the tension and negotiation of personal and social good stewardship. Pursing conservation as a stewardship objective came to reflect not just an altruistic responsibility to care for the land, but a deeply held personal goal. This finding connects with the observations of Fischer and Bliss (2009) that ranchers reported a strong sense of altruistic stewardship, but many also felt they should receive financial compensation for their management work. I have not sought to present these two sides of stewardship aspirations as a ‘debunking’ of the role of stewardship, but to reflect the inherent and often inevitable tensions between individual and social good aspirations for nature conservation on private property.

Knowledge generation: contributions of experiential and social learning

Understanding the role of amenity values is critical for exposing how management knowledge is generated. The way in which participants observed, interpreted and responded to ecological phenomena, primarily in the property space, revealed the power of experiential learning for shaping management practice. In this sense, amenity landholders’ experiential learning had parallels to the ‘learning-by-doing’ practices often cited in farming contexts (Tarnoczi & Berkes, 2009). Through ‘acting’ in the landscape, and deriving knowledge about management and ecologies from the ‘acting back’ of nature, ideas about appropriate management emerged quickly (Jones & Cloke, 2008). Unfamiliarity with rural regions prior to in-migration meant landholders learned rapidly as they settled in their new physical environments. Supporting this interpretation of knowledge generation was the observation that landholders’ aspirations for

management could shift quickly in response to formative landscape encounters; difficulty growing ornamental plants was the key example of this.

As a result of my focus on how landholders interact with their environments, this work moves beyond identification of natural amenity as a pull factor for amenity migration, to show how material interactions with landscape can inform management (Holmes, 2006; Klepeis et al., 2009). The dwelt human-environment perspective has been critical for highlighting how landholders' ongoing experiences of landscape shape their management practices. In line with recent calls in the literature (Abrams et al., 2012), this conceptual framing has helped to 'de-centre' the autonomous social actor as the determinant of conservation outcomes, and allowing room for the agency of nature in contributing to ecological transitions.

I have also shown how amenity values are crucial in shaping learning about land management through social interaction. Previous research into the extent of knowledge exchange, learning and social capital between neighbours has produced highly variable findings in differing rural-amenity contexts. Larsen (2007) found examples of social interaction around environmental issues in amenity regions, and Fischer and Bliss (2008) also noted that amenity landholders reported a desire to learn from one another. Others have suggested that limited social capital and interaction occurs between in-migrants and farmers (Harrington et al., 2006; Klepeis et al., 2009), and reported a general lack of interest amongst new migrants for engaging with neighbours over conservation issues (Yung & Belsky, 2007). From this work, and from broader observations of the increasing heterogeneity of values and aspirations for land use in rural regions (Argent et al., 2010; Gosnell, 2011; Pannell & Wilkinson, 2009), it is clear that uniform patterns of social learning are unlikely to emerge. Despite the likely variability of learning through social interactions across different amenity contexts, my work contributes insights (discussed below) into the proximal nature of social learning that may be important for future research into such learning processes.

The amenity values of space and seclusion that I identified in Chapter 5 had notable impacts on social learning at the neighbourhood level. Maintaining or creating a secluded space away from neighbours translated into different patterns of learning and interaction between neighbourhood and external knowledge sources. Landholders tended to learn about management from communities of practice rather than from the community of proximity that was their neighbourhood. Moreover, these communities of practice were only accessed for specific needs, generally when landholders had failed to resolve a management challenge through trial and error. Few landholders appeared to be ongoing contributors to these communities, most remained on the periphery. Neighbourhood interactions around management tended to be around less controversial issues like fencing or pest fauna management rather than nature conservation. Part of the amenity landholders sought was an escape from the suburbs; good neighbourly relations were important in this respect.

As a result of a desire to maintain good neighbourly relations, participants rarely had conversations over the fence regarding management issue, for fear of creating neighbourly tension. This finding highlighted that the limited local knowledge exchange was due to more than differing land uses between new and established residents, or varying perspectives of 'the rural'. This is not an unprecedented finding, with Larsen et al. (2011) recently noting that 'needs based' social interaction for learning appeared to predominate over proximity encounters with neighbours. These patterns of interaction have clear implications for policy, which I will discuss in more detail later in the chapter.

Social and experiential learning shows how amenity values are ever-present in the processes of learning that inform management knowledge. As such, the key offering of this thesis concerning management knowledge is the way amenity values result in distinctive and preferred channels for knowledge generation, reinforcing aspirations for individualised on-property management practice. How this knowledge solidifies over time is the next theme for discussion.

Eliciting stewardship dispositions

In identifying and analysing stewardship dispositions I wish to emphasise two primary contributions to knowledge made by my research: they relate to 1) the *process* by which dispositions emerge, and 2) a questioning of passive dispositions as exclusively negative.

Understanding how stewardship dispositions form is perhaps the most important aspect of their elicitation in this thesis. The link between amenity values, knowledge generation and dispositions that settle quickly through formative experiences in the landscape has notable implications for policy and practice. As Burton (2012) showed recently in a farming context, it is critical to understand the cultural preferences that underpin practice in the design and implementation of policy that seeks to shift practices and behaviour. Through stewardship dispositions we see how ideas about management and ecosystem function can develop quickly through landscape interactions that reflect both conservation and non-conservation amenity values, like planting vegetation to screen neighbours. The individualised on-property contribution of amenity also reveals how dispositions become tied to experiences on-property. The knowledge generated by these experiences, which settles into dispositions, can prove very resilient to external challenges (Knapp & Fernandez-Gimenez, 2009).

The multiple and sometimes contested amenity values that inform stewardship confirm that stewardship is constructed around everyday life. Trigger et al. (2010) suggested this very phenomenon in a farming context. What I have revealed here is a similar process in rural-amenity landscapes. The difference is that, in the amenity context, 'everyday life' reflects a navigation of lifestyle aspirations different from those in a primary production setting. Stewardship dispositions in hinterland Melbourne are tied up with amenity values like seclusion, ownership and ecological redemption through stewardship. As I will outline later in this chapter, this is an important consideration in the design of conservation policy.

The second important contribution of stewardship dispositions is questioning the common framing of active management as positive and passive management as negative for conservation (Abrams et al., 2012; Erickson, 2002; Gill et al., 2010). My contribution here is not to suggest the opposite is true, but to note the potential for greater nuance in this classification. Again, the dwelt human-environment perspective was useful for revealing this complexity. Landholders can be active in attempting to maintain a static ecology: ecosystems may not be recognised as dynamic and changeable because landholders have not come to know bushland that functions in that way. As shown in a pivotal example involving Sam and Alice, moving to a rural area during a drought, when little growth and change was occurring, consolidated a view of ecosystems as static. There is a potential danger here that active management can be conceptualised as a process of ‘rendering the present eternal’ (Bowker, 2004, p113; Hinchliffe, 2008), leaving little room for the boom and bust cycles of the Australian bush.

In explaining active and passive stewardship dispositions, I have sought to highlight that elements of both dispositions can be positive and negative for conservation. Active dispositions still remain critical, however, especially regarding issues of weed spread across properties (Klepeis et al., 2009; Yung & Belsky, 2007); in this sense alone they are important to encourage through policy and programs. As discussed in Chapter 7 and elaborated on later in this chapter, active and passive stewardship dispositions can also influence the adoption of particular conservation programs, and how those programs are enacted.

The materialisation of practice – dynamic ecologies

I now turn to my research’s contribution in terms of understanding the ecologies being created through management practice.

Boundary making around different natures

My interrogating of the spatial enactment of management practice brought attention to the domestic and bushland spaces being created by landholders on

their properties. Domestic space where lawns and exotic natures could be grown was shown to be vital for cultivating a sense of belonging to unfamiliar rural environments. These natures were often associated with family, heritage and previous dwellings, showing how non-native natures from beyond the local could help to create a sense of homeliness (Cadieux, 2011).

Bringing the spatial elements of management practice to light showed how exotic natures and domestic space should not be assumed to be the antithesis of bushland conservation objectives. Indeed, the domestic space can have an enabling effect, helping landholders to settle their surrounds and express their competence as a land manager. As an avenue for expressing agency and competency, the creation of domestic space has interesting parallels to the actions of farmers and urban property owners. Well kept paddocks (Burton, Kuczera, & Schwarz, 2008) and lush front lawns (Robbins, 2007) can convey a similar sense of status and competence as a property owner. Having an outlet for demonstrating land management competence appeared to be very important to some landholders as they struggled to express their agency in an unfamiliar bushland environment.

In this process of accommodating oneself in the landscape, I illustrated how some landholders used domestic space to bring a tacit acceptance to the unpredictable bushland lying beyond their front lawns. In some cases this led to altruistic stewardship being progressed more easily in the bushland space as the space for nature, with domestic space being for non-conservation aspirations. Willingness to leave nature to its own devices beyond the domestic boundary was perhaps best demonstrated in the treatment of snakes discussed in Chapter 6. This brings a subtle but significant qualification to the idea that aesthetic and ornamental nature preferences are a negative for nature conservation on private land (Gobster, 1999; Knoot et al., 2010). In fact, boundary making around different natures appears to allow landholders to progress their stewardship aspirations without being overcome by the challenges of nature conservation.

Finally, my discussion of how management knowledge can be generated through planting exotic species suggests an important consideration for policy-making. The role of the exotic natures around the home in generating practice and shaping stewardship dispositions means these natures must not be overlooked in understanding how landholders will react to policy interventions. In other words, while conservation policy is primarily concerned with the bushland space that lies beyond the immediate surrounds of the home, awareness of how landholders value, create and manage ornamental nature is important for understanding how different programs might be received. Below I discuss how extension can help in navigating potential tensions between domestic and bushland space in program implementation.

Landscape legacy

The concept of landscape legacy developed in Chapter 3 allowed me to explore the role of temporality in the emerging ecologies of rural-amenity landscapes. The fact that restoration and preservation are inherently temporal pursuits made this an important objective. Landscape legacy emerged from the dwelt human-environment perspective and the acknowledgement that landscapes are inherently cultural rather than natural (Olwig, 2002). As such, landscape legacy centres on the role of dwelt experience of the landscape over time in mediating landholder engagement with social and ecological histories embodied in the environment. Of particular interest here is how these histories are selectively remembered and re-interpreted, as landholders pursue restoration and preservation activities. Drawing on the discussion in Chapter 6, two key findings have emerged from the application of landscape legacy.

Firstly, non-conservation amenity values were central to understanding how preservation and restoration practices were mediated. Recreational and aesthetic nature values, the desire for redemption from past management mistakes and conflicts between restoration and hobby farming activities, all meant landscape histories were being selectively re-interpreted. As such, attempts to bring back ecologies of the past resulted in new arrangements of nature that embodied a negotiation of amenity values. My work here in

developing and applying the concept of landscape legacy shows *how* the ecologies of rural-amenity landscapes are a product of ‘the interrelationships between and among plants, people, and diverse influences on decision making’ (Gill et al., 2010, p332).

Secondly, the materialisation of landscape legacy through management practice exposed how tensions between the personal and broader social good aspects of stewardship play out in the landscape. I gained insights into how attempts at ‘pure’ ecological restoration can be mediated by diverse cultural preferences (Trigger et al., 2010). Landholders often drew on their personal stewardship preferences to navigate the sometimes-necessary prioritisation of competing management tasks. Leveraging amenity preferences to conserve one native species over another ruptured some landholders’ ideas about the ‘belonging’ of indigenous species in the landscape. This showed how the ecological histories on which landholders draw in pursuing restoration and preservation are contested from the outset, long before their re-interpretation in line with amenity values.

Negotiating dynamic ecologies through time

In exposing landholders’ boundary making and landscape legacy interpretations, I showed how negotiation of stewardship and amenity values through time produces dynamic ecologies. These ecologies reflect people’s attempts to establish an amenity lifestyle on-property, whilst simultaneously trying to conserve the environment in which they live. The key contribution of revealing these dynamic ecologies, therefore, is knowledge of how shifting land use aspirations in rural regions are making and re-making landscapes as amenity immigration gains pace. Amenity values associated with ownership, domestic space, seclusion and aesthetic natures are the basis of this shifting landscape trajectory. Dynamic ecologies in rural-amenity regions are now less representative of a negotiation between stewardship and productive land use, and more representative of stewardship negotiated with lifestyle-orientated aspirations.

In characterising dynamic ecologies, I have also sought to show how the changes that amenity in-migrants are affecting in their surrounding ecologies should not be automatically cast in a negative light (Trigger et al., 2010). Indeed, dynamic ecologies can have conservation benefits, including recognition of the habitat value of non-native species (Kirkpatrick, 2006) and the rupturing of wilderness management mentalities (Low, 2000). Such benefits can be important in highly modified landscapes such as those captured in this research (Head & Muir, 2006; Hinchliffe, 2008). By providing a more sympathetic critique than is traditionally the case in the literature on human ‘impacts’ of amenity migration, I have sought to emphasise the inevitability that conservation pursuits will be negotiated with other aspirations, as landholders attempt to establish a comfortable, safe and familiar lifestyle in the bush.

The creative implementation of voluntary schemes

In examining the implementation of voluntary conservation schemes by participants I sought to address the paucity of work on the ‘quality’ of conservation scheme outcomes (Riley, 2006; Wilson & Hart, 2001). In other words, I sought to move beyond adoption as a measure of program effectiveness to consider what it actually means to participate and how participation is expressed in the property space. The increasing interest in voluntary schemes globally, and MBIs in particular (Cooke et al., 2012), means my findings are relevant to a wide audience. Applying the dwelt human-environment perspective allowed me to attribute active agency to both landholders and the landscape in exploring how programs are actually operationalised on the ground (Castree, 2007a). The resulting three key contributions are described below.

Firstly, the practices and ecologies that have emerged before landholders participate in voluntary conservation schemes are powerful determinants of whether the intentions of a scheme will be realised. As such, schemes are implemented amidst a dynamic and ongoing negotiation of amenity values, stewardship and ecologies. My work in revealing how schemes are being adopted builds on recent research suggesting conservation schemes ‘only

formalise a small portion of the social relations that affect management outcomes' (Rissman & Sayre, 2012). While this suggestion may appear self-evident, the work presented in this thesis shows how these complex dynamics can result in unanticipated program outcomes that reflect a negotiation of diverse land management objectives. I give attention to existing practices and ecologies in the following discussion of policy implications.

Secondly, participants adopt voluntary schemes to achieve coupled ecological and social objectives. This is demonstrated clearly in landholders' efforts to protect landscape legacy through Trust for Nature and EcoTender, despite the schemes' objectives centring on ecological legacy. Landholders wanted to preserve their ecologies as embodiments of stewardship effort, as a testament to their interactions with nature over time. In this sense, I identified a personal and human dimension to protection that is not reflected in schemes with a specific biodiversity focus. Furthermore, the ecological outcomes landholders seek can be cast in vastly different terms, owing to people's unique dwelt experiences. It is this asymmetry between scheme intentions and landholder implementation that is driving the creative adoption of programs.

Ultimately, divergence between scheme intention and landholder implementation may compromise conservation outcomes, as landholders realise a scheme may be unable to meet their legacy protection goals (Trust for Nature), or when the financial incentive to depart from underlying stewardship aspirations is removed (EcoTender). As I argue later, voluntary conservation schemes must recognise that ecological objectives are inseparable from the social relations that underpin management if they are to deliver sustainable conservation outcomes (Johnson et al., 2012).

Thirdly, we should not over-simplify property rights perspectives despite the property-centric focus of landholders discussed above (Blomley, 2004). Trust for Nature implementation in particular showed how people can conceptualise social good conservation benefits in the form of individualised conservation action on private land. This is an important point, especially given observations

in this thesis and elsewhere (Klepeis et al., 2009; Mendham & Curtis, 2010; Yung & Belsky, 2007) that the individualised on-property management focus of amenity in-migrants impedes cross-boundary management efforts. Future efforts to design policy for encouraging collaboration amongst landholders will benefit from the observation that some landholders see their personal, property-based efforts as an investment in public good conservation (policy recommendations along this line are made in Chapter 9).

Interrogating the synergies and divergences between scheme intentions and landholder implementation paved the way for considering how policy could be enhanced to better achieve conservation outcomes. I will develop this idea in the next section.

Summary

Through this discussion I have clarified my contribution to research on ecological transitions in rural-amenity landscapes. My contribution centres on how interrelationships between amenity values, knowledge generation and stewardship dispositions inform landholder management practice. It shows how these practices are spatially and temporally enacted to create dynamic ecologies. Through the dwelt human-environment perspective, this work stresses the importance of relationships between human and non-human actors in dictating management processes and outcomes.

As I drew out the role of practices and ecologies in shaping the implementation of voluntary conservation schemes, the creative adoption of these programs became a prominent theme. Attention to the quality of program participation facilitated this finding. By focusing on participation quality I established a platform for considering how voluntary conservation scheme policy can be progressed in ways that can meet conservation objectives, while overcoming some of the implementation tensions exposed.

A humanistic turn for conservation policy

Picking up from the tensions exposed in the asymmetry of policy intentions and landholder implementation, in this section I argue for a humanistic turn in conservation policy. The tensions described above raise a key imperative for advancing policy around voluntary conservation schemes in rural-amenity landscapes: that successful policy must conceptualise the ecologies of rural-amenity property in broader terms than just 'biodiversity' protection. In other words, space must be made for the way landholders value and enact nature conservation in ways that sit outside a 'bounded' biodiversity mentality (Gill, Waite, & Head, 2009). I argue this in light of my findings that landholders are creatively adopting conservation schemes that reflect ecologies that embody amenity, legacy and aesthetic values. However, as Chapter 7 shows, conservation schemes can focus on pure ecological conservation objectives at the expense of inherent social relations. In response I suggest that in order to be sustainable (produce positive long-term stewardship), policy must respond to the other conceptions of the ecologies of rural-amenity landscapes, and the multiple trajectories of amenity values, knowledge and stewardship that make and are made by them.

By considering how management practice has multiple trajectories, space is created for a less biodiversity-centric conception of how landholders practice conservation in rural-amenity landscapes. In advancing this argument, I use the work of Hinchliffe (2007, p159; 2009) to show how policy-making must respond to a 'multiplicity of things' in achieving a sustainable trajectory for conservation policy. This helps to recognise the place of people as accommodated in the space where conservation is performed and the negotiation of lifestyle in this space. I suggest this is particularly relevant for nature conservation efforts in heavily modified landscapes like those studied here.

The policy implications of multiplicity

In this section I progress the policy implications of the idea that ecologies in rural-amenity landscapes consist of 'more than one thing' (Hinchliffe, 2009,

p318). Recognition of this ‘multiplicity’ provides a useful way of thinking about the ecologies of private land that can assist in the incorporation of humanistic considerations in conservation policy. In deploying multiplicity here, I am seeking to apply the conceptual work elicited in Chapter 3, and explored through the empirical chapters, for a policy-specific purpose.

I apply multiplicity to show how ecologies can be positioned as more than simply biodiversity, without forgoing the broader objectives of nature conservation policy. As Hinchliffe demonstrated in the context of urban gardens, pursuing better policy outcomes means being cognisant of how ‘practices are assembled’ (Hinchliffe, 2009, p159) through relationships between human and non-human agents over time. By viewing the ecologies of private land as multiple, created and creating, a useful footing is established for considering how a humanistic turn could address the tensions of conservation scheme implementation demonstrated in Chapter 7.

The need for a humanistic turn

Throughout Chapters 5 and 6 I exposed the multiple and diverse motives and aspirations that produce unique practices and ecologies in rural-amenity landscapes. This revealed the ways in which conservation management is ‘entwined with culturally driven assumptions and judgments’ (Trigger et al., 2008, p1281). Multiplicity serves as a basis for suggesting that we need to work with these cultural sentiments, not against them, as they are not peripheral to management practice; rather, they are at the very core of directing the knowledge and stewardship that informs practice. Moreover, incorporating multiplicity into the policy-making sphere serves to reflect the role of non-human agency in shaping both land management actions and landholder knowledge.

This is not to say that conservation policy should simply allow landholders to do as they please, nor passively accept all participant knowledge as appropriate in a relative context. Instead, the challenge is to consider how best to achieve careful and sustainable land management policy without discouraging or disillusioning

landholders who want the same thing, albeit in a variety of ways. As Hinchliffe (2007, p159) phrased it, the task at hand is to progress matters positively through policy without doing 'untold damage' to the people and things that are already being assembled. By avoiding a framing of management in pure biodiversity terms, we are not blinded to the other management trajectories that will influence the reception of programs by potential adopters.

Embracing multiplicity in policy making would mean more room for the creative adoption of conservation schemes within a broader trajectory for nature conservation (Castree, 2007b; Hinchliffe, 2009). By moving beyond bounded thinking that views nature conservation only through a biodiversity lens, policy is more likely to resonate with the people who occupy these landscapes (Gill, Waite, & Head, 2009). I argue that appealing to the coupled social and ecological objectives of landholders will ultimately benefit the long-term effectiveness of voluntary conservation schemes in achieving their nature conservation goals. As such, the humanistic turn described here is not intended as a turn away from conservation objectives in rural-amenity landscapes, but a pathway to improving the long-term sustainability of conservation outcomes.

Based on the above discussion, in the next section I identify some key principles on which to base voluntary conservation scheme policy in rural-amenity landscapes.

Principles for advancing a humanistic turn for voluntary conservation scheme policy

In this section I outline three principles for re-orienting policy around voluntary conservation schemes in a way that captures the humanistic turn advocated above. They are 1) recognising management practice as more than praxis, 2) treating ecologies as 'inhabited', and 3) positioning extension as a key tenant of voluntary conservation policy. These principles are broadly defined, meaning they are applicable across schemes with different core policy instruments (market-based instruments, legally binding agreements, non-binding suasion).

This broad framing also allows connection to other contexts, both nationally and internationally, where voluntary schemes are being implemented in rural-amenity landscapes.

Management practice as more than praxis

One way of factoring the diversity of knowledge and learning that shapes management practice into the design of voluntary conservation schemes is to adopt the expanded definition of ‘management practice’ outlined in Chapter 3. By consciously recognising the intangible aspects of management that presuppose praxis, space can be created in the policy making process for considering *how* landholders construct practices and ideas around conservation. This would recognise that landholders practice management and value ecologies in ways that extend beyond a biodiversity mentality, forcing policy to engage with other value framings around nature conservation.

My analysis of the process by which stewardship dispositions form enabled me to recognise that existing landholder practices are not be easily shifted by conservation schemes. In other words, thinking about practice as more than praxis forces conscious reflection on how the intentions of schemes could be received by potential adopters. This mode of thinking is particularly important for programs that are attempting to change behaviour over a short duration through incentives – such as MBIs like EcoTender – as it forces consideration of whether the behaviour change leveraged by short-term financial incentives will continue once a scheme concludes (Bekessy & Cooke, 2011).

The notion of practice as more than praxis is also a straightforward way of bringing attention to the agency of the landscape in policy-making. As I have discussed, recognising the physical environments in which landholders dwell as powerful for shaping experiential learning is critical for understanding management. By recognising that landholders’ management knowledge is strongly influenced by their experience of local environments, policy can be more open to framing conservation objectives in ways that recognise non-human

agency (Jones & Cloke, 2008). Cues can be taken from the Land for Wildlife scheme in recognising unique practices, and providing a forum for landholders to share them through the program newsletter. By combining this landholder knowledge-sharing with expert knowledge delivered through the same medium, experiential management practice is reflected in how people interact with their property ecologies, appealing to broader valuations of nature conservation.

Lastly, moving beyond praxis draws attention to the way knowledge for management is acquired and shared (or not shared) in rural-amenity landscapes. In my research the limited knowledge exchange occurring at the neighbourhood level highlighted a clear opportunity for voluntary schemes as a source of knowledge for people who are hesitant to engage with neighbours. The popularity of on-property extension across all schemes, and the adoption of Land for Wildlife for the purposes of learning more about 'my patch', showed the potential niche for schemes in this regard. Recognising the learning dimension of practice impels policy-makers to factor processes of knowledge development more prominently into scheme design. As has been noted in this research and elsewhere, access to information can be very attractive to participants, even if it is not the core mechanism of the program (Kilgore et al., 2007).

Targeting subtle shifts in practice – recognising existing dispositions

By accepting the potential for programs to encounter durable dispositions for stewardship, policy should aim to shift practice in subtle ways. When existing knowledge and dispositions have emerged and settled over a period of years, directly challenging these ideas with professional knowledge is not likely to be well received. This was acutely evident in the narratives of Nick and Liz, who refuted expert opinion that directly challenged their view of how they managed their property (Liz's refutation on page 147). As has been noted, direct challenge of strongly held management ideas can often reinforce landholders' existing views (Knapp & Fernandez-Gimenez, 2009). Subtle shifts that do not directly challenge existing dispositions may ultimately be more effective for setting landholders on a more sustainable course for achieving the conservation goals of voluntary schemes in the longer term. In the next section I reflect further on how

attempting these subtle shifts through extension is best pursued in the property space, given the central role of the property in shaping landholders' stewardship dispositions.

Treating ecologies as inhabited

While I have framed the above humanistic turn partly around a need to view the ecologies on private land as spaces inhabited by people, particular findings emerge from my research that can translate this into a policy principle. To begin with, positioning ecologies as inhabited helps to break down the pretence of wilderness management in the design of voluntary conservation scheme policy (Low, 2000). This is especially true of more recent settler societies like Australia and the US, where wilderness ideas remain prominent (Saltzman et al., 2011). By revealing the mediating role of amenity values, my research has shown how policy must temper its expectations of achievable conservation outcomes in rural-amenity regions. Supporting this view is the observation that landholders are already exerting considerable agency in operationalising conservation schemes in ways that accord with less essentialist nature conservation goals.

That people live in the places of interest for conservation policy is a self-evident but critical observation. Even the most ardent conservationists need to make some compromises to conservation aspirations in establishing a lifestyle in the property space. As Prévot-Julliard et al. (2011) suggested, conservation policy that combines restoration and preservation efforts with the need to reconcile people with the natures they inhabit is vital to sustainable outcomes. In other words, a pure biodiversity mentality can neglect to foster meaningful connections between people and nature, threatening the sustainability of the conservation work being conducted (Gill et al., 2009). Indeed, pulling back from the strict focus on indigeneity may actually help to retain important habitat in highly modified landscapes with few remaining patches of remnant vegetation (Kirkpatrick, 2006; Head, 2011).

Evidence from this research and the wider literature also hints at the potential reluctance of landholders to adopt conservation schemes when they perceive them as focused solely on biodiversity conservation (Harrington et al., 2006). As some landholders who did not participate in conservation schemes mentioned, the perceived inflexibility of programs often presented conflicts with non-conservation amenity aspirations. As with the re-positioning of management practice noted above, thinking about ecologies as inhabited contributes to an overall recognition of the need for programs to be more flexible (Putten, Jennings, Louviere, & Burgess, 2011). This flexibility can help to create room for the coupled social and ecological objectives of landholders.

Extension as a central tenet of voluntary conservation policy

Landholder-extension officer interaction in the property space as way of building flexibility into the implementation of programs must be a core element of voluntary conservation scheme policy. Conversations about management are best had in the tangible space in which management is conducted (Marsh & Pannell, 2000). As these ecologies are pivotal in shaping specific stewardship dispositions, conflicting advice is best delivered in the same context. This is an important principle, given the roll back of extension services in recent years as governments have taken a more hands-off role in the delivery of conservation programs (Greiner & Gregg, 2011; Lane, Wills, Vanclay, & Lucas, 2008). As such, findings that suggest EcoTender participants value the somewhat unintended extension element of the scheme are critical, as EcoTender encapsulates this trend of governance devolution.

Working with diverse aspiration, rather than against them

Extension has potential efficacy in delivering schemes that work with multiplicity rather than against it, to achieve conservation outcomes. As well as providing advice on conservation practice, the extension encounter enables extension officers to advise landholders on broader land management issues. One example of how this could be useful is in advising landholders on non-invasive ornamental species to plant for aesthetic reasons that are unlikely to

spread into bushland. Similarly, strategies for balancing the removal of vegetation around the home to reduce wildfire threat with nature conservation aspirations may best be achieved through on-property extension (Eriksen & Prior, 2011). Therefore, property-based extension permits negotiation of conservation outcomes in line with the diverse objectives of landholders, as opposed to dictating top-down management approaches (Vanclay, 2004).

The landscape as learning environment

Extension can connect with the role of non-human agents in shaping management. Extension officers can get a sense of how landholders' experiential knowledge has emerged in the property ecology, and how it has shaped their stewardship disposition. Moreover, when ecosystem change is being misconstrued as weed invasion (a common theme in Chapter 5), the on-property extension encounter offers the perfect setting for teaching ideas of dynamic and changeable ecosystems to landholders who had never previously experienced them. For this reason, extension is the best way programs can respond to and recognise the agency of the landscape and the durability of stewardship dispositions in shaping practices. The insight that extension officers can get into the practices of landholders suggests they should be involved in the design and review of voluntary schemes. Extensions officers are a key resource that appears to be vastly underutilised in policy-making.

Through my research I developed an appreciation for the role of material environments as a repository of memory and a propagator of management discussions (Nazarea, 2006). The physical environment can be an important catalyst for management discussions as it embodies the experiences of landholders in that space over time. Just as I experienced during the 'walkabout' process, landholders can begin asking questions about ecologies or management when prompted by their surrounds, despite previously indicating no need for management advice. As such, extension can create a 'trigger event' (Sutherland et al., 2012) for introducing alternative management practice or ideas on ecosystem function to landholders, allowing for the subtle shifts in management practice suggested above. We saw this potential in Chapter 7 through Land for

Wildlife's apparent ability to shift passive dispositions towards active dispositions through on-property extension.

It is also evident that the sooner an extension encounter can occur after amenity landholders in-migrate the better, before too many misconceptions about ecological processes have formed. The increasing pace of property turnover in rural-amenity regions in Victoria especially presents both a challenge and an opportunity in this regard.

Summary

A humanistic turn for conservation policy should be viewed as an alternative pathway to sustainable land management, rather than a refutation of conservation policy objectives. Ongoing rural land use transitions and increasing uncertainty for the future of rural environments in the face of climate change necessitate more inclusive policy trajectories rather than a narrowing of avenues for addressing nature conservation (Head, 2011). I view the above principles as a means for developing a more sustainable trajectory for conservation programs in rural-amenity landscapes, making room for ecologies that reflect a wider spectrum of values and approaches to nature conservation.

Chapter 9

Conclusion

In the final chapter of this thesis I illustrate how a focus on management practice provides new insights into our understanding of ecological transitions in rural-amenity landscapes. The role of the conceptual framework and methodology I developed to facilitate this understanding is encompassed in my summation. Following this I conclude the policy dimension of this research by highlighting recommendations for the three conservation programs studied in Chapter 7. I then turn to the limitations of the research project, including theoretical limitations. In discussing these theoretical aspects, I suggest avenues for adapting the dwelt human-environment perspective for future application. Future directions for research are outlined, and finally a concluding statement on my overall findings.

New insights into ecological transitions

Bringing context to management practice

The central conclusion to be drawn from my positioning of landholder management practice in a social and material context is the powerful role of amenity values in shaping management. My research has extended the idea of ‘amenity’ beyond something that landholders seek through rural in-migration, to show how its pursuit has a powerful and formative role in shaping ideas about management and ecosystem function. The property-centric focus of amenity aspirations leads to rapid emergence of experiential knowledge through observation, interpretation and response to the ecologies of everyday life. This process reveals the property space to be a powerful site of learning-by-doing for landholders who have little prior knowledge or experience of management or livelihood in rural landscapes.

Amenity values also result in clear differences between the management knowledge exchanged at a neighbourhood level and learning through communities of common practice. A desire to maintain good neighbourly relations and enjoy the seclusion associated with the rural idyll (Gosnell, 2011) meant amenity landholders were hesitant to raise conservation issues with neighbours. This restricted the 'across the fence' knowledge exchange commonly associated with productive rural regions (Williams, 2004). In contrast, landholders dipped in and out of knowledge communities that operated at larger scales in response to specific management issues. In this sense, knowledge generation through social learning revolved around need rather than proximity (Larsen & Hutton, 2011).

The processes of knowledge generation noted above settled into distinct dispositions for stewardship over time. These dispositions guided landholders' approach to management practice, which were classified as either passive or active. Exploring how these dispositions emerged through amenity values and dwelt experience provided critical insight into how management practice is informed; this proved important for later policy discussion. Moreover, this work provided some clarification to categorisations of passive management as always negative, by showing how negative outcomes can also emerge from misconceived active management endeavours. As suggested in Chapter 8 and reiterated below, on-property environmental extension services must be a critical element of policy design that wishes to expose landholders to ideas about dynamic ecosystem change.

Overall, these findings add to our understanding of how landholder management practice emerges through the relationships between and amongst people, and the landscapes in which they dwell (Jones & Cloke, 2008). As a consequence, efforts to change practice through policy or other means must consider the potential for encountering unique and entrenched views on conservation.

The making of dynamic ecologies

The materialisation of management practice in the landscape showed how tensions between amenity values and stewardship were producing dynamic ecologies. I adapted the term 'dynamic ecologies' to describe the negotiation of amenity with stewardship that was resulting in new arrangements of nature. These arrangements reflected the challenges landholders experienced in accommodating themselves in unfamiliar environments. These dynamic ecologies were being enacted and managed in distinct spatial and temporal arrangements.

The application of landscape legacy showed the power of landscape histories in producing new ecologies in rural-amenity landscapes. Alongside the reinforcement of the inherently temporal aspects of restoration and preservation, landscape legacy brought attention to the understudied role of temporality in ecological transitions. In analysing these histories I showed how they were selectively remembered and re-interpreted in line with amenity values and the contested aspects of past landscapes (Trigger et al., 2010). In revealing how new natures emerged from efforts to recreate old ones, interesting tensions between personal and social good aspects of stewardship were exposed. While the personal aspects of stewardship often won out, the fact that tensions existed shows that common and sometimes-unavoidable prioritisations are necessary when managing highly modified landscapes.

Analysis of the spatiality of dynamic ecologies showed that landholders had strong preferences for exotic ecologies as a means for helping to 'settle' new rural surrounds through the creation of domestic space around the home (Power, 2005). In challenging the idea that exotic or aesthetic natures are antithetical to nature conservation, I suggest domestic space can bring comfort and a sense of belonging to rural landscapes, helping landholders to pursue altruistic conservation objectives in the bushland space (Gobster, 1999; Knoot et al., 2010). This is significant for the design of voluntary conservation policy; schemes must ensure landholders are given sufficient space to pursue non-

conservation aspirations, allowing them to exert their agency and become accommodated in unfamiliar environments.

Creative operationalisation of voluntary conservation schemes

Attention to the 'quality' of landholder participation in voluntary conservation schemes shows how landholders are seeking social and ecological outcomes that are often broader than the conservation objectives of programs. The amenity values, knowledge and stewardship dispositions that produce dynamic ecologies mediate landholder engagement with voluntary conservation schemes. These findings enhance our knowledge of how social actors can find creative ways of adapting and implementing conservation policy that depart from core policy intentions (Castree, 2007a; Lockwood & Davidson, 2010). My recognition of the potential for and extent of creative adoption of voluntary programs led me to call for a humanistic turn for conservation policy in rural-amenity landscapes.

Trust for Nature participants often sought to preserve landscape legacy as opposed to just ecological legacy, which proved to be a key example of creative implementation. The application of individualised collective action also showed how landholders conceptualised the social good benefits of their legacy preservation efforts through discrete and individualised practice. This has important implications for addressing cross-boundary management challenges through Trust for Nature that I expand on in the policy recommendations below.

Land for Wildlife proved to be the most flexible and adaptive of the three schemes I evaluated in that it makes room for diverse aspirations of landholders. Land for Wildlife appealed to landholders who wanted to pursue conservation individually on-property, and the property-based extension process helped to reduce landholder reticence towards active stewardship. As such, it was the only scheme that appeared capable of shifting existing stewardship dispositions. The effectiveness of property-based extension through Land for Wildlife supported the emphasis on extension as a principle for voluntary scheme policy design in the previous chapter.

EcoTender proved to be the scheme with the greatest divergence between scheme intention and landholder implementation. For some participants, the desire to protect landscape legacies and the expression of stewardship proved more decisive than financial incentives. This is an important conclusion, given the increasing scale of public investment in MBI programs targeted at nature conservation (Cooke et al., 2012). Moreover, the focus on indigeneity in restoration activities initiated some tensions with landholder preferences for dynamic ecologies, raising questions about the ability of the scheme to produce long-term shifts in conservation behaviour (Bekessy & Cooke, 2011). The policy conclusions section below suggests a more sustainable future trajectory for EcoTender.

Theoretical conclusions

The application of the dwelt human-environment perspective has been pivotal in facilitating sensitivity to the interactions of human and non-human actors in shaping management practice. This conceptual framing has highlighted the importance of experiences of the landscape without limiting the influence of social and material relations to those 'authentic' places (Massey, 2005). In highlighting the role of cross-scale social and material relations like those associated with exotic natures and their role in 'belonging', the dwelt human-environment perspective has challenged associations of indigeneity with belonging in nature conservation (Head & Muir, 2006).

The dwelt human-environment perspective also helped to derive the landscape legacy concept, emphasising the importance of understanding how past ecologies are reinterpreted through management practice. Moreover, it raised the potential for this past to be projected into the future, as landholders seek to solidify their own personal legacy contributions for conservation. By suggesting the need for policy to consider social and ecological considerations as coupled, the dwelt human-environment perspective also gave direction for exploring how landholders operationalise voluntary conservation schemes.

Finally, the dwelt human-environment perspective drove the need to clarify the definition of 'management practice' in this thesis. Positioning learning and knowledge alongside praxis brought much-needed clarity to the concept, which guided my fieldwork in highlighting the processes that informed praxis. Moreover, an expanded definition of management practice can be fed into policy design to bring attention to the social and landscape interactions that shape management. This expanded definition was identified as a policy principle in Chapter 8.

Methodological lessons

My application of the walkabout method in the context of private land conservation produced valuable insights (Strang, 2010). I highlight this aspect of the methodology specifically as surprisingly little research in this field has consciously attempted to utilise the landscape as a site for interviews or participant observation (Riley & Harvey, 2007). The insights gained from landholders' ability to use their surrounds to recall events and experiences, as well as being able to observe the history of management practice through its material embodiment, were central to the findings of my research. Moreover, walking landholders' properties with them allowed me to observe past land management practices in the form of planting, fencing or weed control, providing critical insights into changing management ideas and practices over time. As such, I advocate the use of the walkabout method in research with the intention of exploring behaviour, potentially as a way of triangulating findings from other methods like interviews and surveys.

Policy conclusions and recommendations

As noted above, exposing the tensions of policy and practice revealed how landholders pursue nature conservation in broader ways than is reflected by the mentality of programs. In order to advance conservation policy in a sustainable manner, I have recommended a humanistic turn that aims to achieve coupled social and ecological objectives while reflecting the already highly modified natures of rural-amenity landscapes. The humanistic turn shaped broad voluntary conservation policy principles in Chapter 8, intended to increase the

flexibility, appeal and sustainability of voluntary programs to lifestyle-orientated landholders. Here I focus on providing recommendations for the three schemes I studied, which can address their implementation challenges in line with a humanistic turn (refer to Table 7.2 in Chapter 7 for a reminder of the key issues that needed to be address across the three schemes). Outlining specific recommendations for the three schemes in the final chapter provides a prominent place for these recommendations in my thesis. The recommendations coalesce the policy dimensions of my work by showing how the policy principles in Chapter 8 can be applied to discrete programs (see Table 9 below). In addressing this policy dimension, I also seek to reinforce my belief that voluntary conservation schemes have an important role to play in the portfolio of policy options for achieving nature conservation on private land.

Table 9. Recommendations for voluntary conservation schemes in line with a humanistic turn.

Trust for Nature	
Goal	Recommendation
Recognise landscape legacy and not just ecological legacy	<ul style="list-style-type: none"> • The Trust should highlight to participants that covenants do not guarantee legacy protection beyond ownership tenure. In so doing, the Trust should look to facilitate meaningful connections between participants in close proximity, encouraging the exchange of management knowledge. By encouraging these connections, when properties are sold, new owners buy into a network of participants who can assist them management challenges • The Trust should encourage landholders to document their practices through field journals and photographs so a body of material can be passed to a new owner when a property is sold
Adopt a softer narrative around conservation covenants	<ul style="list-style-type: none"> • The scheme already makes allowances for non-conservation aspirations through provisions for a domestic zone, but this feature should be more heavily promoted on the Trust's website and elsewhere • Emphasise how the extension element of the scheme helps potential participants negotiate a covenant with the Trust to underscore that covenants are a mutual agreement, not an inflexible top-down instrument
Connect individual practices to landscape-scale conservation benefits	<ul style="list-style-type: none"> • Participants often want to connect their individual practices to conservation outcomes at a landscape scale; covenants should facilitate this desire. An online forum for connecting participants, or participant-generated material in newsletter form like that provided through Land for Wildlife, could help in this regard

Land for Wildlife	
Goal	Recommendation
Raise profile amongst participants	<ul style="list-style-type: none"> • To raise the prominence of the scheme amongst existing participants, Land for Wildlife should increase the newsletter's circulation and frequency and emphasise the landholder-generated content.
Look to governance arrangements in other states for lesson in improving program	<ul style="list-style-type: none"> • Land for Wildlife should examine models of implementation other than state-level delivery; catchment management agencies or local government may be better placed to deliver the program, as is done outside Victoria. This may also facilitate a more active public profile for the scheme

EcoTender	
Goal	Recommendation
Align preservation and restoration aspects of scheme to reduce pure ecology focus	<ul style="list-style-type: none"> • EcoTender allows landholders to protect heavily altered and non-indigenous ecologies through permanent protection mechanisms, and this flexibility should apply to the restoration aspects of the scheme. A wider range of plants should be available for revegetation, reflecting a broader trajectory for nature conservation • EcoTender should frame its objectives more in terms of long-term, sustainable management practices, rather than leveraging short-term gains that are directed by extrinsic financial incentives. In other words, policy-makers must think beyond the duration of the scheme in considering the benefits of incentivising management
Increasing extension element	<ul style="list-style-type: none"> • More extension visits and greater recognition of the value placed on extension by program participants is vital for advancing EcoTender. These interactions address landholder desires to learn more about their patch. The property visit should be treated like a risk aversion strategy, as it is a form of extension that can help translate conservation ideas into practice, potentially increasing the cost efficiency of the scheme.
Recognise legacy preservation motives	<ul style="list-style-type: none"> • Landholders are often interested in the scheme as a way of projecting their legacies into the future - protecting legacy could become a key narrative for the promotion and advertisement of this scheme, helping to attract a wider range of landholders to conservation (as per the stated intentions of the scheme).

These recommendations are designed to appeal to a diversity of amenity aspirations without forgoing the intended conservation goals of the schemes. Extension must be a core element of these efforts, as shown by the recommendations for all three programs. The potential for programs to encounter entrenched stewardship dispositions and perspectives on ecosystem function shows how extension has a unique value in assisting landholders with conservation efforts while achieving the objectives of programs.

The policy design recommendations outlined above recognise the human element of private land conservation. Focusing on legacy aspects, broadening scheme narratives and management requirements to avoid alienating

landholders with broader conservation goals, and encouraging social cohesion between program participants, help to fill gaps in the way schemes address social dimensions. As such, these recommendations reflect a mentality for coupled social-ecological objectives in policy-making.

Limitations and reflection on researcher positionality

Research and methodological limitations

As discussed in Chapter 4, no research participants in my study had been on their property for less than five years. The recruitment of some landholders who had moved to their property more recently may have offered some different experiences or perspectives on management to the research. While longer-term amenity migrants were able to reflect on early experience, it would have been useful to learn how very recent in-migrants were addressing management challenges.

Interactions between myself as the participants were relatively short, ranging between 40 minutes and 1.5 hours. Research more in line with traditional ethnography, in which a longer period of time is spent in the field with participants, might have allowed additional insights to emerge (Williams, 2004). Nonetheless, spending an extended period of time with landholders had the potential to expend the goodwill of landholders who invited me onto their property.

My ability to capture the voices of absentee landholders was a limitation of this research, given absenteeism is an important aspect of the rural-amenity migration phenomenon (Chase & Siegel, 2012; Petrzalka, Malin, & Gentry, 2011). This was a function of difficulty in recruiting absentee participants, rather than a conscious methodological choice. I reflect on future opportunity for research involving absentee landholders in the next section.

Despite wildfire management and protection issues being raised by some participants, talk of fire in a management context did not feature as heavily as anticipated. This was unexpected, given the high risk to life and property presented by fire in Victoria. Moreover, research into wildfire preparedness in other rural-amenity regions of Australia has reinforced it as an important issue in land management practice (Eriksen & Gill, 2010). However, several participants mentioned in passing that since the Black Saturday fires in February 2009 (the worst in Victoria's post-settlement history) they decided they would leave on days of high fire danger rather than stay on their properties to protect their homes. The decision to leave may affect how fire preparedness is factored into land management for conservation; I expand this point in the future research section below.

Theoretical limitations and reflections

In looking to study land management practice I looked to expand beyond the 'authentic' interactions of place that permeate Heidegger's dwelling perspective by incorporating relations beyond the local through SES thinking. SES thinking was valuable for translating research findings for policy in a private land conservation context, where the owners of property, and the ecologies on that property, are often framed as separate. This helped to break down social-ecological separations, providing a platform for the types of integrated human-environment policy insights featured above.

However, an alternative perspective may be required to bring greater recognition to the wider (global) social and material relations that are contributing to ecological transitions in rural-amenity landscapes (Abrams et al., 2012; Harvey, 1999). The dwelt human-environment perspective helped to make room for exotic natures in shaping a connection to landscape, showing how non-local material relations could shape practice; however, my work has predominantly centred on local relations in understanding the influences on practice. While this dominance of local relations may be partly a result of my methodological decision to ground landholder narratives around experiences of

the landscape, refining the conceptual approach may draw more attention to wider relations (economic settings, property markets, technology use). As such, other heuristics may be more suited to being paired with dwelling.

One potential way for addressing the above point is to apply the notion of 'assemblages' of social and material relations alongside dwelling as a heuristic for agency. Assemblage is concerned with the multiplicity of human and non-human relations and their distribution across scales from local to global in the making and re-making of things. Thus, assemblage focuses on multiple and distributed relations, while dwelling provides a model for understanding how these relations are assembled (McFarlane, 2011a). Uniting dwelling and assemblage has been used to show how urban spaces are not just inhabited, but produced through the process of habitation (McFarlane, 2011a, 2011b). This has obvious parallels to the dynamic ecologies that are made by reinterpreting the past through dwelling in the property space. Moreover, my application of multiplicity as a way of thinking differently about ecologies suggests dwelling and assemblage could work well together; combining these concepts in research on land management may hold promise for a more adaptable and translatable heuristic for exploring human-environment relations.

Assemblage and dwelling in combination may require less work to refine and clarify a model of agency for exploring management practices than was the case with SES thinking. By not beginning with a broad categorisation of the 'social system', as per SES thinking, assemblage may be more adaptable across different contexts. If SES thinking were to be replaced, however, consideration would have to be given to how policy implications would be dealt with and communicated through this heuristic, as a governance focus was the key benefit of SES thinking.

Another potential approach that encourages attention to global social relations would be to embrace socio-technical studies, specifically Actor-Network Theory (ANT). While I targeted material landscapes as the non-human agent in most need of conceptual advancement in this field, insights from socio-technical studies could make an important contribution by interrogating other non-human

actors in shaping management practice (Cloe & Jones, 2004; Hinchliffe, 2007). Capturing the materiality of things whilst accepting their relational aspect in understanding human-environment interactions can be achieved through a nuanced application of ANT (Hinchliffe, 2009). Despite suggestions of incompatibility between ANT and a dwelling perspective (Ingold, 2008), recognising that 'things' never 'fully lend themselves to a relation' (Hinchliffe, 2009, p317) presents an appealing conceptual avenue for further research in this field.

The application of assemblage may present a greater challenge for translating research into a policy context – an obvious benefit of SES thinking. However, there are two outcomes from the application of multiplicity in this thesis that point to some particular avenues for policy translation. Firstly, multiplicity shows how bushland itself exists as an active and ongoing management interaction between people and nature, rather than an ecological asset that is 'apart' from people. From a policy perspective, this helps direct attention to the processes by which people interact with their property ecologies. Thus, attention to multiplicities could mean policy-making starts with recognition of these inter-relationships, and the importance of not harming them through the design of new policies (Hinchliffe, 2009).

Secondly, multiplicity conveys the idea that conservation must be about more than attempting to fix ecologies in time and space, but about working with the various human and non-human multiples that are always in the making (Hinchliffe, 2010). This idea of nature as always in the making is helpful in the private land context, with ongoing property turnover and the associated shift in management regimes emphasising the need for flexibility in the framing of policy and its conservation objectives.

Researcher positionality

Having outlined the perspective that my personal history brought to the motivation and design of my research project, it is important to reflect on how my positionality shaped the interpretations and outcomes of my research.

Firstly, my professional experience dealing with private landholders regarding conservation issues made me aware of the potential gaps between what people say they do, and what they actually do, in terms of land management on their property. Not only did this inform my use of the walkabout method, but it resulted in a strong emphasis on this phase of the research encounter when building the emergent themes through the data analysis process. As seen throughout the thesis, images of management practices feature strongly. These images capture not only management practices in action, but they also reflect the important conversations that occurred around the features captured. As a result, many of the key themes emerging from the research have their origin in the walkabout experience, and are supported by the interview material.

Secondly, I believe my experience of growing up on a rural-amenity property resulted in a more sympathetic critique of landholder management practices. I was acutely aware of the various management challenges faced by landholders without a rural background. It is possible that an ecologist/environmental researcher that has not lived on a property like those featured in this study would not be as sympathetic to people's practices of removing vegetation for fire protection purposes, for example. While many of the practices detailed in my thesis were far from ecological 'best practice', I believe I accurately captured landholders' practices in a context that showed a general desire to be good environmental stewards. The strong emphasis placed on how landholders navigated stewardship with wider amenity aspirations is an example of how this sympathetic critique was reflected in my thesis.

Future research opportunities

Substantial opportunity exists for further research on the adoption of voluntary conservation schemes, especially MBIs, to further explore the role of financial incentives as a motive for uptake. As noted here and elsewhere, the parallel phenomena of rural-amenity migration and increasing political will for MBI schemes is an important context for future land management research (Gosnell, 2011; Lockwood & Davidson, 2010). In this thesis I demonstrated unique

examples of financial incentives failing to work as intended, in the sense that they did not produce the desired result. An expanded study that takes a mixed methods approach to researching multiple financial incentive programs could make an important contribution to this area of research. Further work on the role of competitive bidding processes like those of EcoTender, and the potential for restricted collaboration between landholders due to this program characteristic, would be of particular interest. Assuming government conservation policy seeks to achieve landscape-scale conservation outcomes, cooperation and collaboration between individual landholders appears necessary. Competitive tender schemes that pit landholders against one another in competition for funding appears likely to inhibit collaboration. The impact of tender-based schemes on local social relations, and potential avenues for alternative delivery mechanisms, require investigation.

As noted in Chapter 4, for reasons of recruitment difficulty, I did not specifically investigate absentee property ownership and the implications for land management. While some recent research addresses this gap (Petrzelka et al., 2011), the implications of absenteeism for conservation policy still requires attention. There is potential for connecting ideas developed in this thesis regarding the human-environment interactions underpinning management with the type and frequency of landscape interactions experienced by absentee landholders. For example, shorter, punctuated experiences on-property may reduce the extent to which absentee landholders develop experiential knowledge, negatively affect social learning and neighbourly relations, and weaken stewardship dispositions. Allowing conservation programs and staff to operate on weekends when landholders are most likely to be present has already been recommended (Mendham & Curtis, 2010). Further work on absenteeism and its influence on how management practice is informed and performed would help to fill this research gap, while also providing additional insights for policy design.

The limited extent to which wildfire threat was raised as a management consideration, despite previous work suggesting its prominent role, suggests a

need for further research. Specifically, there is a need to probe comments by some participants that they would leave their property on high fire danger days, whereas prior to the horrific Black Saturday wildfires in 2009 they felt they could stay and defend their homes. It would be useful to explore whether an increased likelihood of leaving a property in periods of high fire danger is changing the way landholders are managing their properties for conservation. In other words, if landholders have decided to leave in response to the threat of fire, are they less concerned about preparing their property for fire than if they had chosen to stay and protect their homes? As advice from fire agencies continues to be revised following the Black Saturday bushfires, it is important to understand the follow-on effect for conservation management on private land.

Finally, The global extent of rural-amenity migration provides opportunities for exploring 'management practice' as framed in this research, in a range of settings. In exploring practice and its policy implications in depth, a greater sense of the similarities and differences between rural-amenity regions can be ascertained. Of particular interest would be comparisons between my study and the way rural-amenity landholders operationalise forestry programs, easement schemes and MBIs in the US, Canada and Europe. Such comparisons could continue to build the case for more reflexive and sustainable conservation initiatives aimed at private land.

Concluding statement

The processes and outcomes of management practice contributing to ecological transitions in rural-amenity landscapes embody a negotiation of amenity values and stewardship as landholders come to establish a new rural lifestyle. In this sense, rural amenity in-migrants are shaping new ecologies through their management practice, but their management practices are also shaped by the ecologies in which they reside. At its core, the pursuit of amenity aspirations translates to an individualised approach to management, resulting in durable, property-centric stewardship dispositions. As a result of these diverse aspirations, voluntary conservation schemes are being enacted in creative ways

that depart from their biodiversity-centric mentality. By taking a more humanistic approach to conservation schemes, we can produce more inclusive conservation outcomes that reflect the multiple ways in which nature conservation is practiced in highly modified landscapes. This humanistic turn will be crucial for addressing future environmental challenges in rural-amenity landscapes across the post-industrial world.

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Appendix I – participant interview prompts

1. Can you tell me what it's like to live on your property?
 - a. Have you always had a bit of land (growing up)?
2. Have your land practices changed much over the time you have been here?
 - a. Example of a practice that has changed?
3. Do you have a good relationship with your neighbours?
 - a. Can you tell me about a time when discussions with others directly impacted your practices?
 - b. Is there anyone specifically you look to for guidance in this regard?
 - c. Is there anyone who seeks you out?
4. Can you tell me how conservation came to be something you took an interest in? ('Conservation' may be used interchangeably with comparative terms)
5. Can you tell me about a specific time when conservation played a role in a decision you made about how you manage your land?
 - a. What are your memories of how conservation growing up?
6. Can you tell me how you came to be aware of *[program]*?
 - a. Can you tell me about the process you went through to determine if *[program]* was right for you?
 - b. Did you have any misgivings? Do you still have them?
 - c. Can you tell me about your interaction with *[program]* coordinator?
7. Can you tell me how *[program]* is a good match for your circumstances?
8. Can you tell me what you think of other types of conservation programs?
 - a. Would any of those programs be a good match for you?
 - b. Have you been approached by anyone to participate in the past?
9. How would you characterize conservation efforts locally?
 - a. Is there an example of successful efforts that comes to mind?
 - b. Have you witnessed people turn their properties around (regeneration)?
 - c. What are the pressures on conservation efforts locally?
10. Can you tell me what you think the future holds for you on your property?
 - a. How do you see your involvement with *{program}* changing, if at all?

Appendix II – plain language statement

Dear

My name is Ben Cooke, and I am undertaking a PhD at RMIT University in Melbourne. My Senior Supervisor is Dr Sarah Bekessy, Senior Lecturer, Planning and Environment. The title of my research is 'Exploring the influences on landholder conservation practice'.

My research is interested in how landholders in the Bass Coast region of West Gippsland, came to decide to participate in private land conservation programs. The study is concerned specifically with understanding the influences on participation across a variety of program types; in this case, I am interested in the stories of people who have adopted the Land for Wildlife program, a Trust for Nature covenant, an EcoTender Agreement, or a combination of the above. This research aims to understand how landholders' experiences with conservation on private land can assist future policy design.

This project is aiming to speak to approximately 30 people *in total* who have adopted one or more of the programs listed.

You have been identified as someone who is involved in one or more of the listed programs, and I invite you to share your story about the decision to participate in the program/s, and conservation efforts in general. If you are interested in being involved in this project, it would involve the following:

- An interview with myself taking approximately one hour at your place of residence, at a time and day of the week that is convenient for you. With permission from yourself, interviews will be tape recorded to aid in the data analysis process
- A brief walk/drive around your property, to identify conservation work and to view any land management or property characteristics discussed during the interview. This can be for a very short duration if need be, to minimise potential disruption to your day. If permissible, photos could be taken of significant sites or works, however if this is not considered appropriate, or could threaten your anonymity, it will not be done or requested

This project does not seek to intrude on the practices of individuals in an invasive manner, there is no obligation to answer a question if it is deemed inappropriate, or visit any specific sites on the property. All documentation will be treated as strictly confidential, and not used for any other purpose outside of the research project. All data collected will remain anonymous, codes or pseudonyms will be used in the publication or presentation of results.

Should you wish to take part, please note that you can withdraw at any stage of the process. If you do withdraw, all information obtained from you will be destroyed and not used in this, or any other research project. All data will be kept for a maximum of 5 years and stored securely on University premises. No

one other than myself will have access to this information. The research findings may be presented at conferences and published in academic journals.

All participants will be sent a transcript of the interview if they desire, which will allow you to review what was discussed. Any concerns about the content of the transcripts can then be discussed with myself. All participants will be automatically sent a summary of the research findings, and any additional publications will also be made available upon request.

If you would be willing to participate, or have any questions or concerns, please feel free to contact me at any time to discuss any aspect of this research in greater detail.

Thanks very much for your time!

A handwritten signature in black ink that reads "Ben Cooke". The signature is fluid and cursive, with the first name "Ben" and the last name "Cooke" clearly distinguishable.

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Any complaints about your participation in this project may be directed to the Executive Officer, RMIT Human Research Ethics Committee, Research & Innovation, RMIT, GPO Box 2476V, Melbourne, 3001. Details of the complaints procedure are available at: http://www.rmit.edu.au/rd/hrec_complaints

Appendix III – interview schedule: program staff

Interview Schedule

1. Can you tell me from your perspective, the objective of *[program]*?
2. Can you tell me about some of the ways people come to decide to participate in *[program]*?
 - a. Is there a particular example of the back and forward with a landholder that comes to mind?
3. What do landholders who decide to join, want out of *[program]*? Any examples?
4. What is it about *[program]* that you think landholders find most attractive?
 - a. Is there any aspect of *[program]* that people object to? Does this always mean they will not participate? (Probing the idea that people will accept a certain level of dissatisfaction with program arrangements, as long as their broader objectives are satisfied by participating in the program)
5. Can you tell me how effectively you think *[program]* is being implemented by landholders?
 - a. Is there an example that typifies the way programs are implemented?
 - b. Can you tell me about a case of poor/good (depending on the theme of the previous response) implementation?
6. Can you tell me about the relationship you have with the landholders in this region?
 - a. Does it change much over time? Do you have a specific example of an individual case where this occurred? (Want to probe whether trust has prospered between landholder and coordinator – do landholders come to the coordinator with other land management issues?)
 - b. Do you get much referred business? How often does it actually result in participation? (This prompt will be dependent on the extent to which landholder interaction is discussed as an influence on participation earlier)
7. Can you tell me a few stories about your experiences dealing with people who consider joining the program, but choose not to?
 - a. What are their reasons?
 - b. Do any come around eventually?